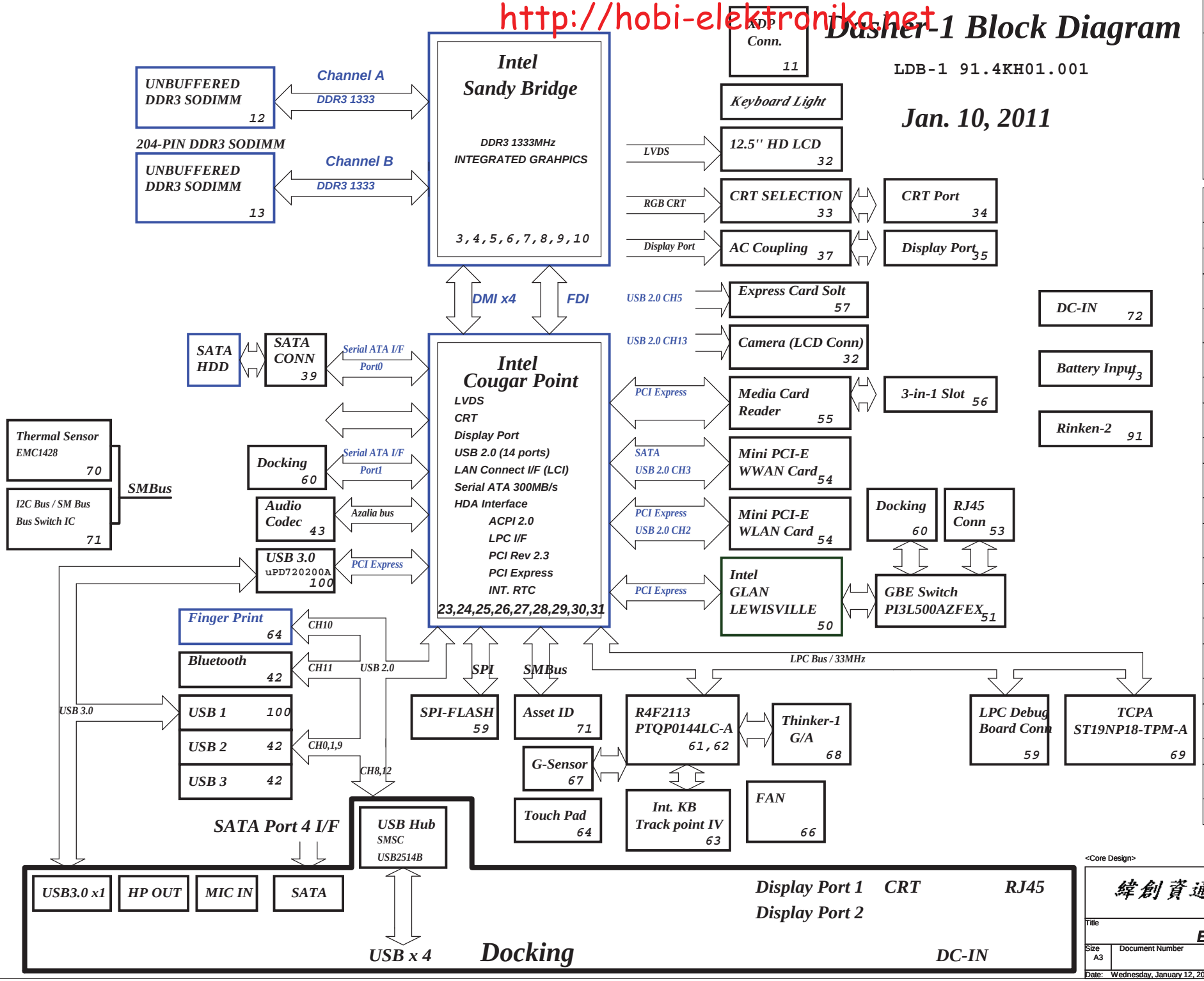
Dasher-1 Block Diagram

LDB-1 91.4KH01.001

Jan. 10, 2011



PCB Layer Stackup

- L1:Component
- L2:GND
- L3:Signal 1
- L4:VCC
- L5:Signal 2
- L6:Signal 3
- L7:GND
- L8:Component

Battery Charger/Selector BQ24742 74	
INPUTS	OUTPUTS
DOCK_PWR20	CHARGER_OUT12

System DC/DC TPS51220ARSN 78	
VINT20	VCC5M VCC3M

CPU DC/DC VT1316/VT1317 79	
VCC5V_OUT	VCCCPUCORE

GMCH GFX CORE VT1317 81	
VCC5V_OUT	VCCGFXCORE

VCC1R5A VT357FCX 86	
VCC5V_OUT	VCC1R5A

VCC0R75B MAX1510 87	
VCC1R5A	VCC0R75B

VCC1R8B TPS62060 89	
VCC5V_OUT	VCC1R8B

VCC1R05AMT VT356FCX 85	
VCC5V_OUT	VCC1R05LAN

VCC1R05B_VTT VT357FCX 84	
VCC5V_OUT	VCC1R05B_VTT

VCCSA VT355FCX 90	
VCC5V_OUT	VCCSA

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Title: Block Diagram

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RESISTOR

Symbol name	Value	Tolerance (J: 5%, F: 1%, D: 0.5%, B: 0.1 %)	Rating 0402=> 1/16W, 25V 0603 => 1/16W, 75V 0805 => 1/10W, 100V	Size 2=>0402, 3=>0603, 5=>0805, 6=>1206, 0=>1210
10KR3	10K Ohm	If no letter, it means J: 5%	1/16W, 75V	0603
33D3R5	33.3 Ohm	If no letter, it means J: 5%	1/10W, 100V	0805
1KR3F	1K Ohm	F: 1%	1/16W, 75V	0603

The naming rule is value + R + size + tolerance
For the value, it can be read by the number before R. (R means resistor)
For the tolerance, it can be read from the last letter.
For the rating, we don't show on the symbol name.
For the size, R2=>0402, R3=>0603, R5=>0805,....

CAPACITOR

Symbol name	Value	Tolerance (M: +/-20, K: +/-10, Z: +80/-20)	Rating	Size 2=>0402, 3=>0603, 5=>0805, 6=>1206, 0=>1210
SCD1U10V2MX-1	0.1uF	M/X5R	10V	0402
SC10U6D3V5MX	10uF	M/X5R	6.3V	0805
SC2D2U16V5ZY	2.2uF	Z/Y5V	16V	0805

The naming rule is
Capacitor type + value + rating + size + tolerance + material
SCD1U10V2MX-1
SC=> SMT Ceremic, TC=> POS cap or SP cap
D1U => 0.1uF
10V => the voltage rating is 10V
2=> 0402, 3=>0603, 5=>0805
M=>tolerance M, K, Z
X=> X7R/X5R, Y=> Y5V
-1 => symbol version, nonsense to EE characteristic

PLANAR_ID[3..0]

IBEXPEAK-M	39	38	48	49	Planar ID Version	Planar PCB Version
PLANAR_IDn	3	2	1	0		
	0	0	0	0		
	0	0	0	1		
	0	0	1	0	Dasher-1 Pre-DV	SA
	0	0	1	1	Dasher-1 SDV/UT	SB
	0	1	0	0	Dasher-1 MFVT	SC
	0	1	0	1	Dasher-1 FVT	SD
	0	1	1	0	Dasher-1 M-SIT	SE
	0	1	1	1	Dasher-1 SIT	SF
	1	0	0	0	Dasher-1 SVT	-1

EC HISTORY

Stage	Date	EC No.	Page	Note

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Title: ***Reference***

Size: A3 | Document Number: **Dasher-1** | Rev: SD

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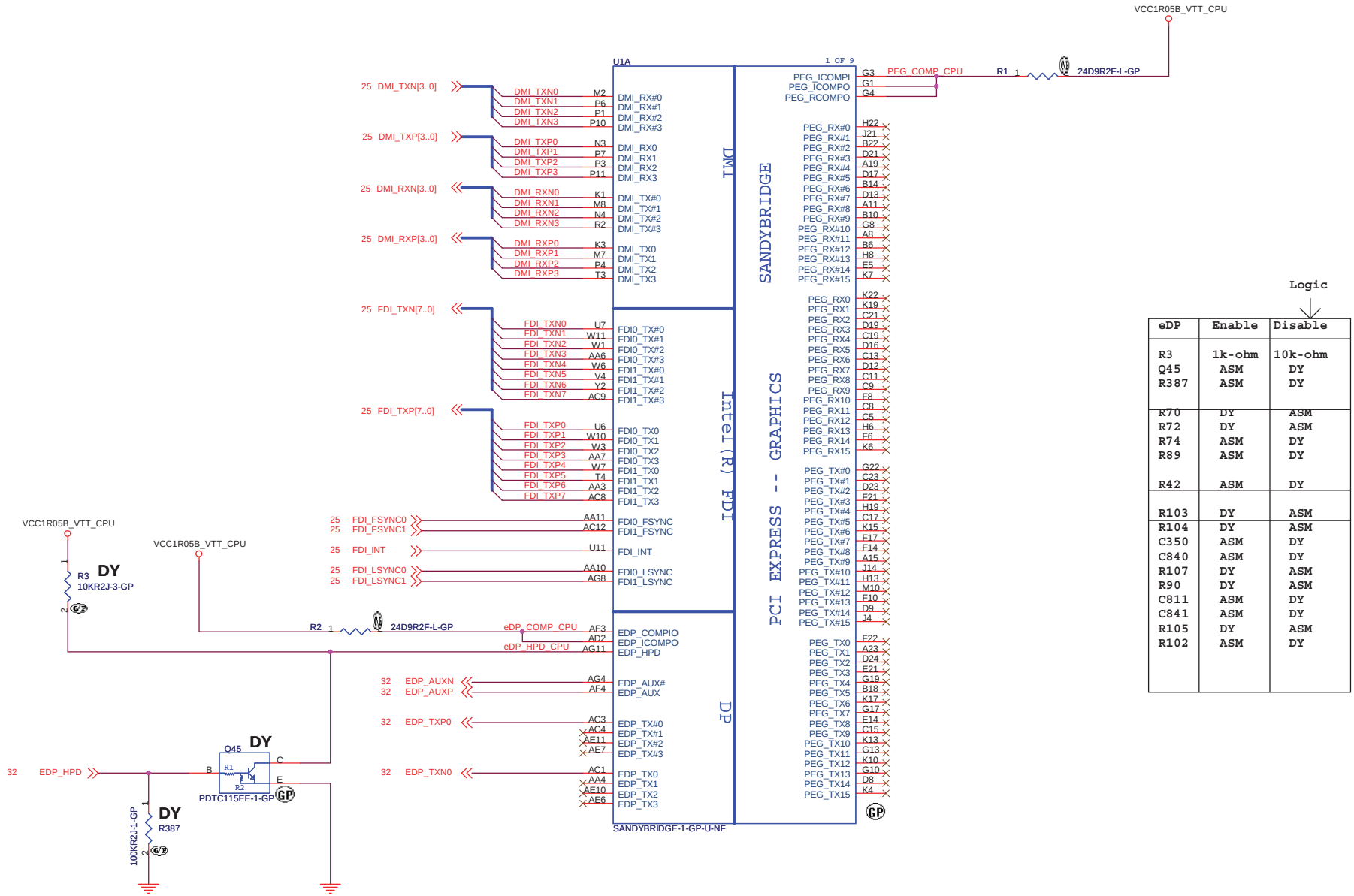

Logic

eDP	Enable	Disable
R3	1k-ohm	10k-ohm
Q45	ASM	DY
R387	ASM	DY
R70	DY	ASM
R72	DY	ASM
R74	ASM	DY
R89	ASM	DY
R42	ASM	DY
R103	DY	ASM
R104	DY	ASM
C350	ASM	DY
C840	ASM	DY
R107	DY	ASM
R90	DY	ASM
C811	ASM	DY
C841	ASM	DY
R105	DY	ASM
R102	ASM	DY

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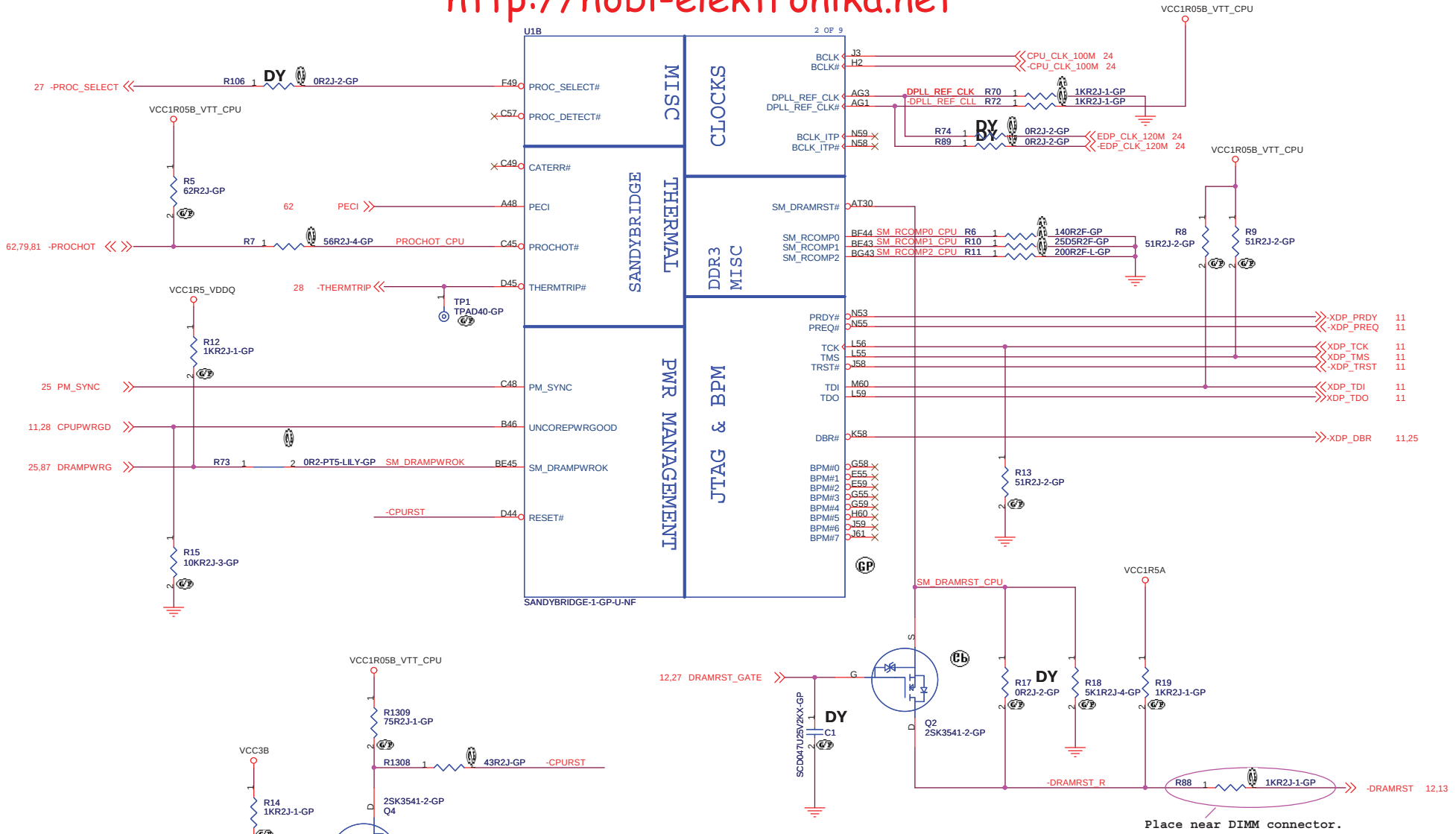
Title: CPU(1/8):DMI/EDP/PEG/FDI

Size	Document Number	Rev
A3	Dasher-1	SD

Date: Monday, January 10, 2011 Sheet 3 of 101



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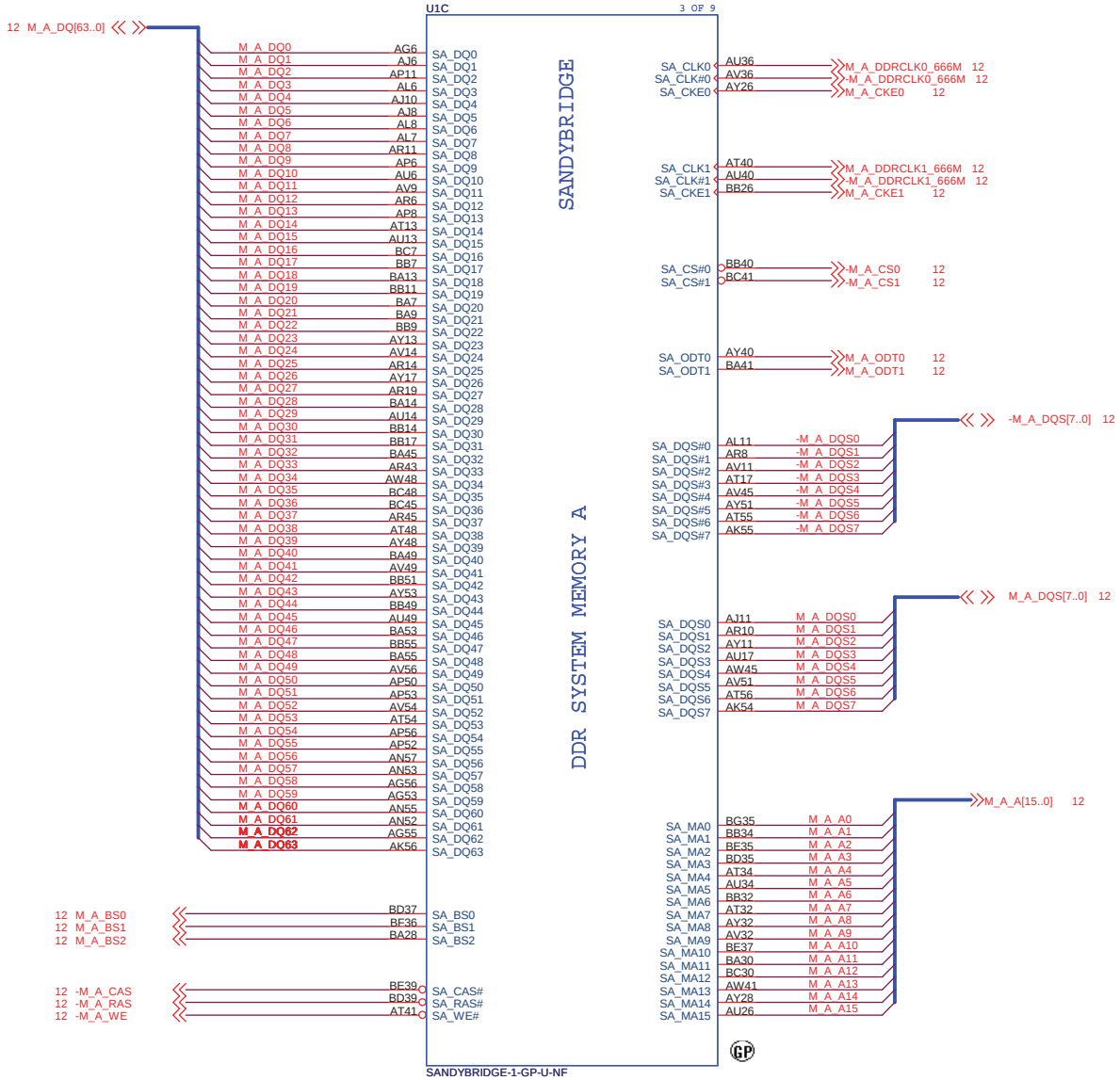
緯創資通	**Wistron Corporation** 21F, 88, Sec.1, Hsin Tai Wu Rd., Hsichih, Taipei Hsien 221, Taiwan, R.O.C.
Title	**CPU(2/8):CLK/MISC/JTAG**
Size A3 / Document Number	**Dasher-1** / Rev **SD**
Date: Monday, January 10, 2011	Sheet 4 of 101



<Core Design>

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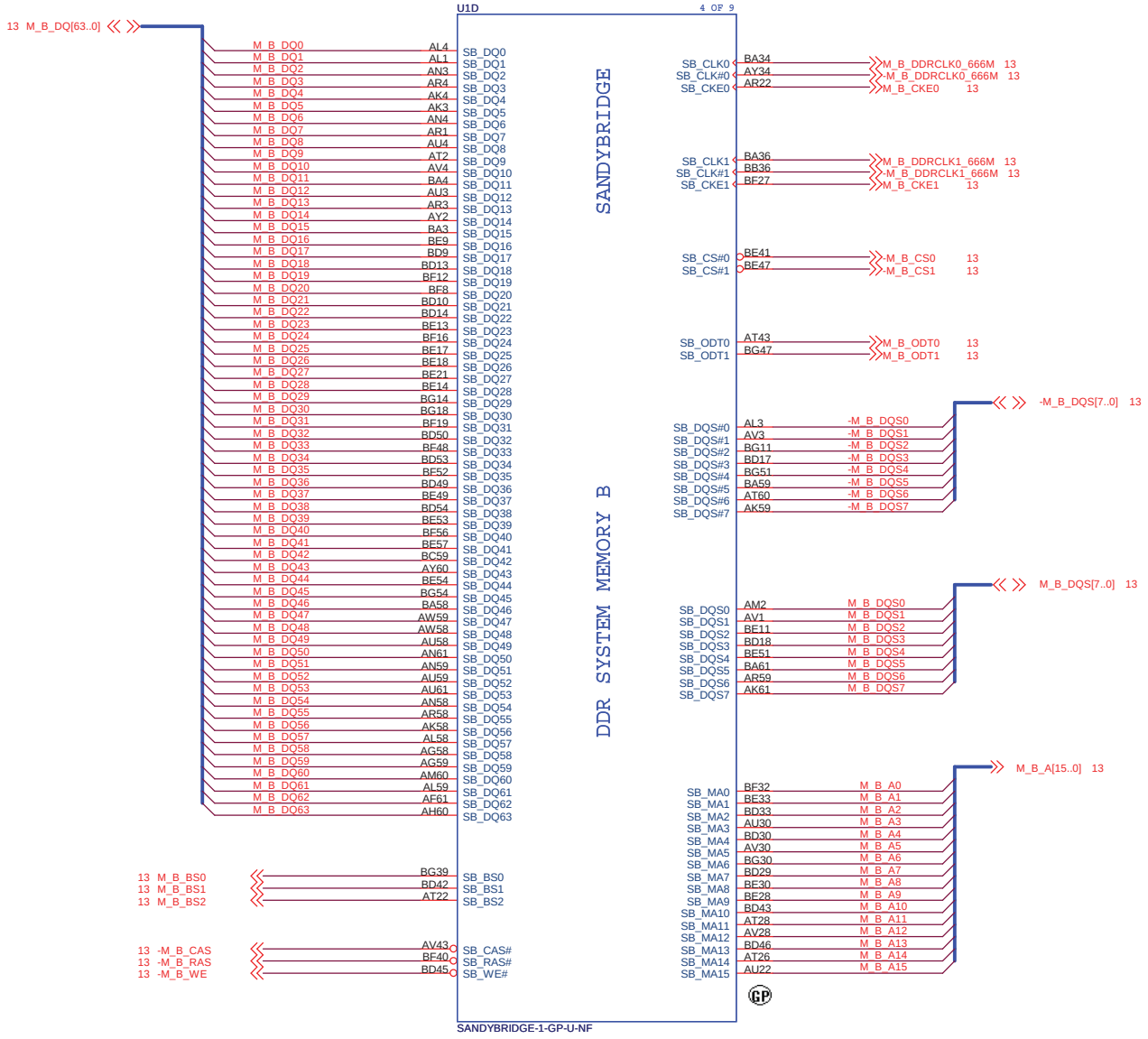
Title: **CPU(3/8):DDR3 Channel-A**

Size	Document Number	Rev
A3	Dasher-1	SD

Date: Monday, January 10, 2011 Sheet 5 of 101



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Title: CPU(4/8):DDR3 Channel-B

Size	Document Number	Rev
A3	Dasher-1	SD

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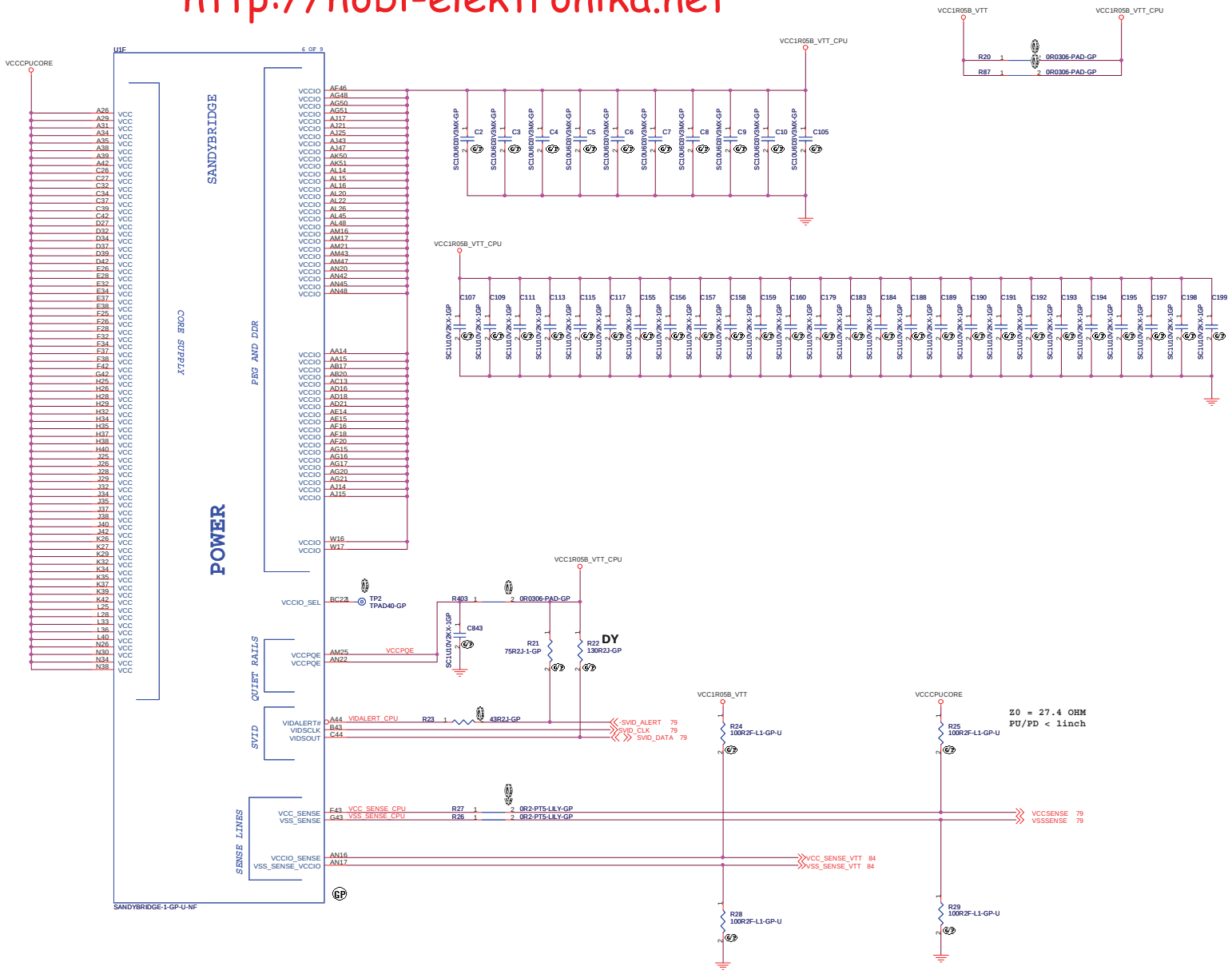

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Title: CPU(5/8):Processor Power

Size	Document Number	Rev
A2	Dasher-1	SD

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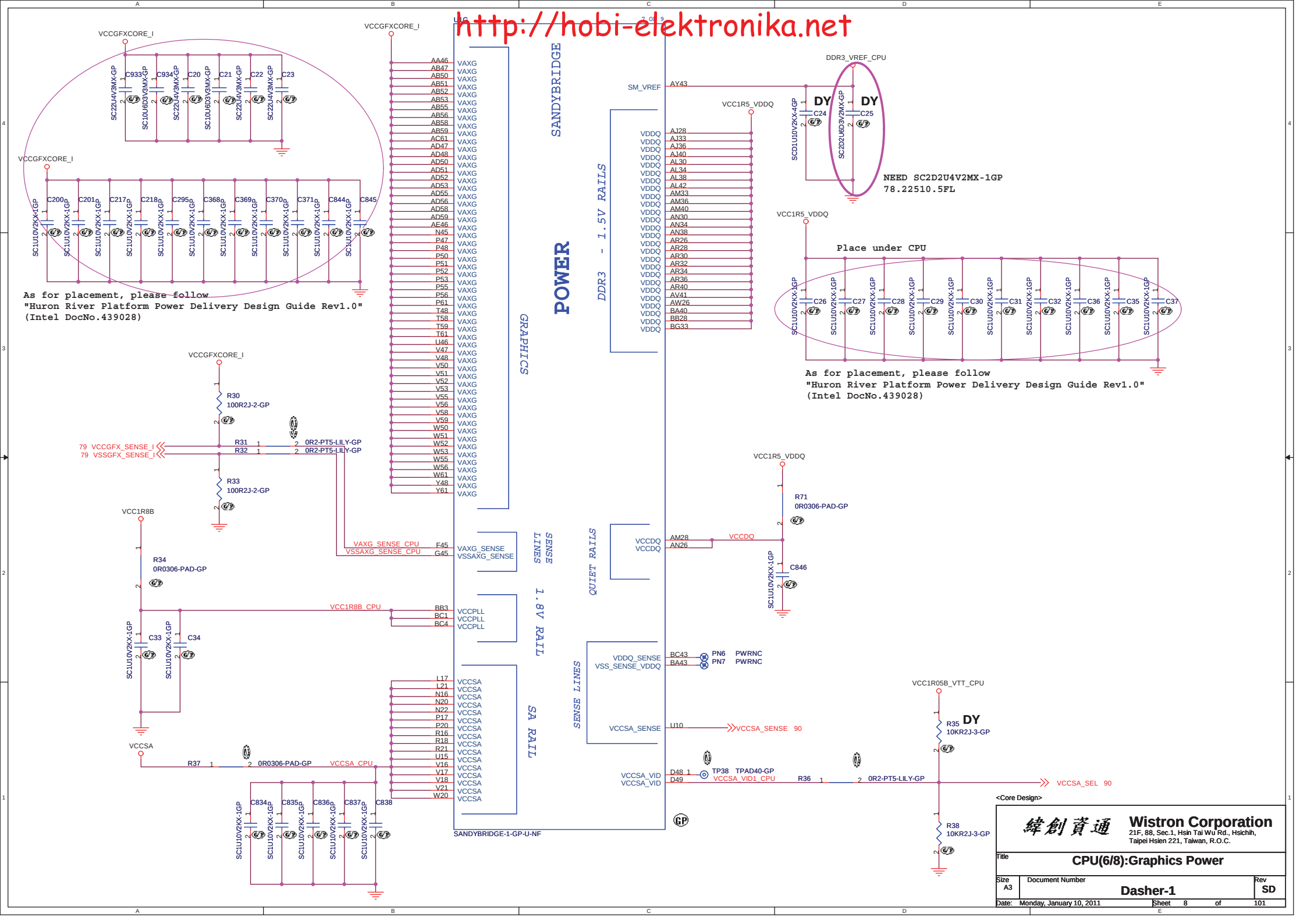

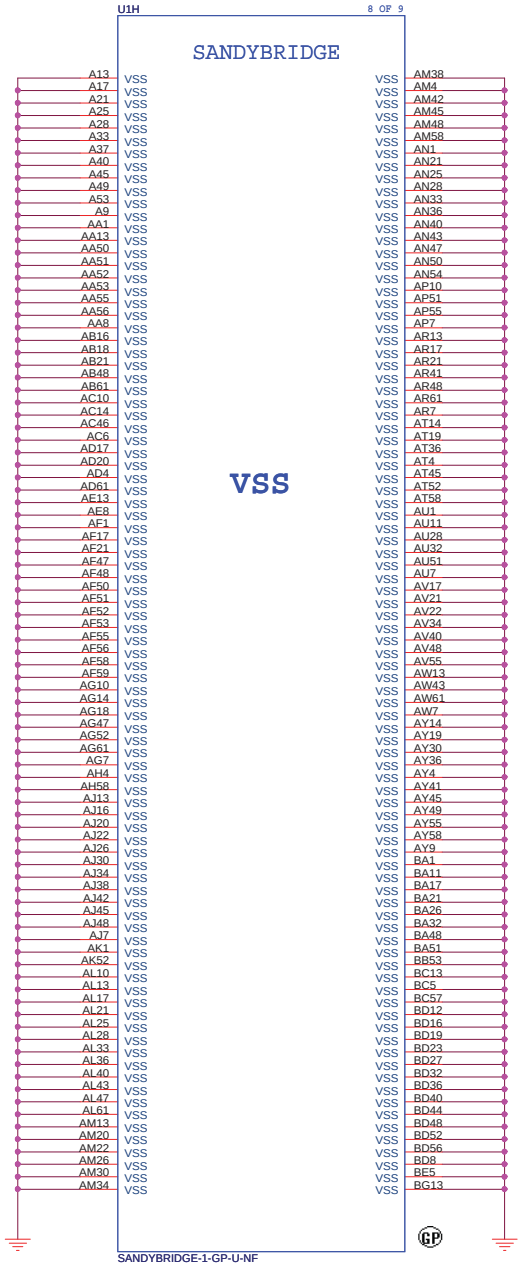

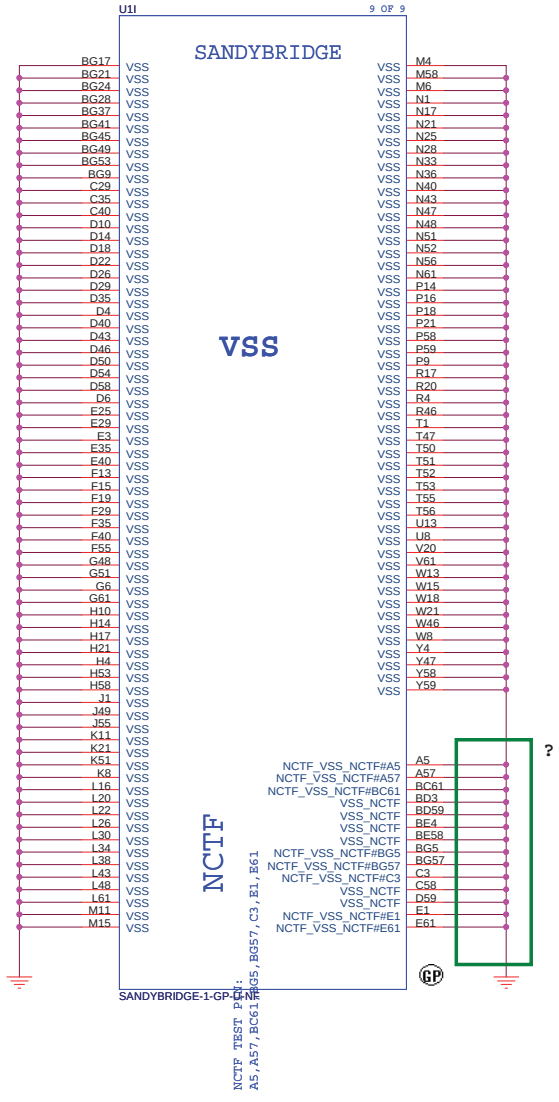

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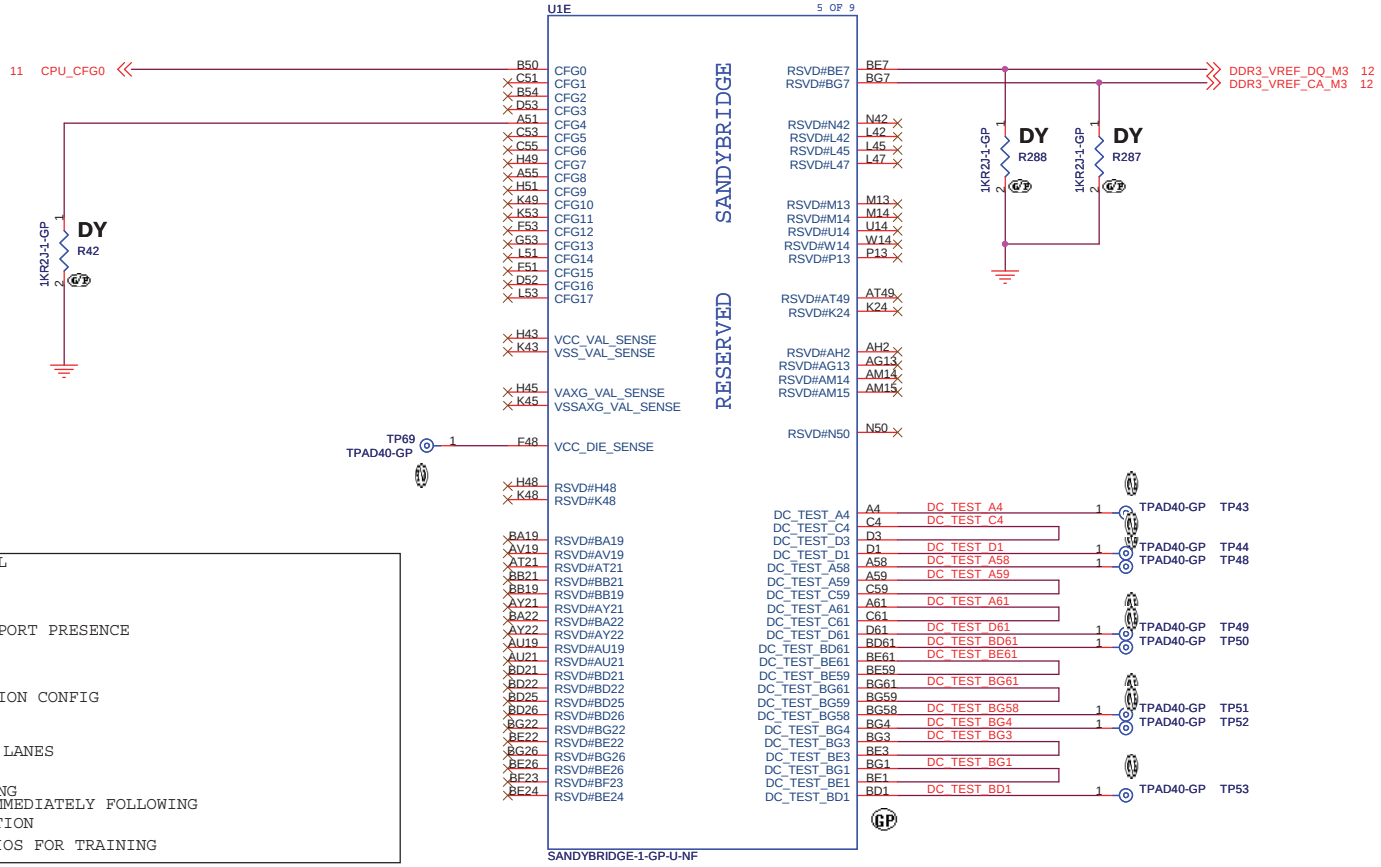
Title: CPU(7/8):GND

Size: Custom | Document Number: Dasher-1 | Rev: SD

Date: Monday, January 10, 2011 | Sheet 9 of 101




```
CFG2 PEG LANE REVERSAL
   1 NO-ASM : NORMAL
   0 ASM : REVERSE


CFG4 Embeded DISPLAY PORT PRESENCE
   1 NO-ASM : DISABLE
   0 ASM : ENABLE


CFG[6:5] PEG BIFURCATION CONFIG
   11 SINGLE 16 LANES
   10 2x8 LANES
   01 RESERVED
   00 8 LANES AND 2x4 LANES


CFG7 PEG DEFER TRAINING
   1 NO_ASM : TRAIN IMMEDIATELY FOLLOWING
      XXRESETB DEASSERTION
   0 ASM : WAIT FOR BIOS FOR TRAINING
```

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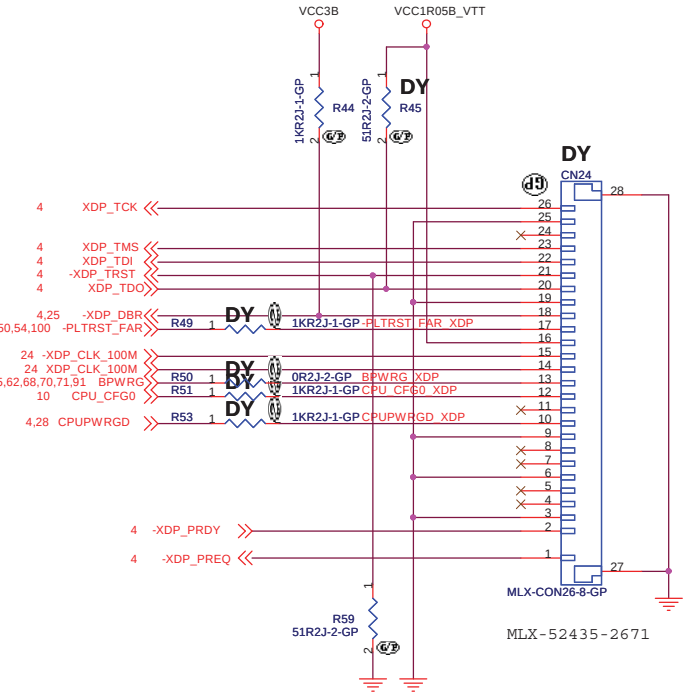
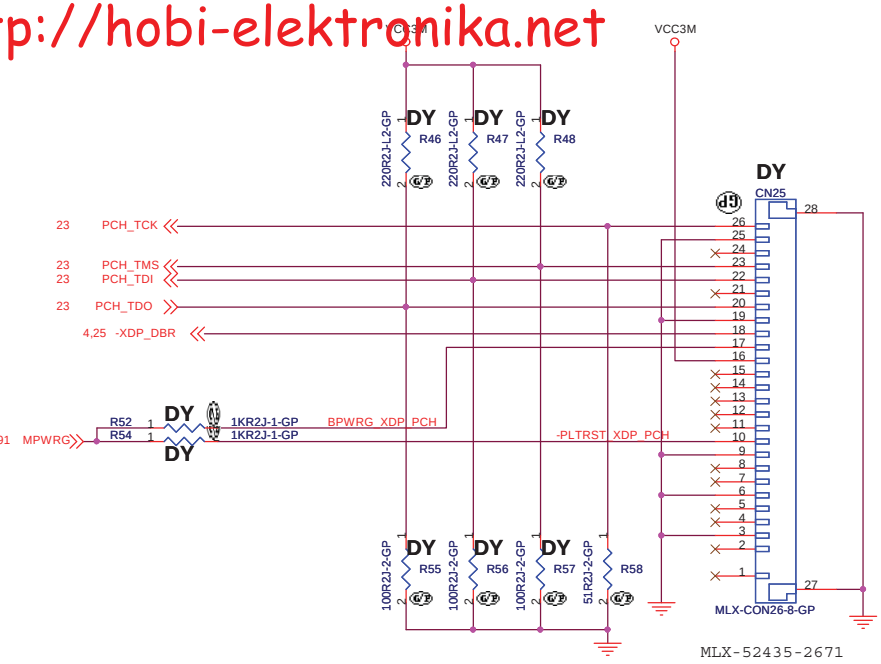
Title: **CPU(8/8):CFG/Reserved**		
Size: A3	Document Number: **Dasher-1**	Rev: SD
Date: Monday, January 10, 2011	Sheet 10 of 101	



DEBUG Interface for Processor.



DEBUG Interface for PCH.

XDP1

		ENABLE	DISABLE
TDO	R45	ASM	DY
TRST#	R59	ASM	ASM
DBRST#	R44	ASM	ASM
RESET#	R49	ASM	DY
CFG0	R51	ASM	DY
PWRGD	R53	ASM	DY
BPWRG	R50	ASM	DY
	CN24	ASM	DY

SIT Logic

XDP2

		ENABLE	DISABLE
TDO	R46	220	DY
	R55	100	DY
TMS	R48	220	DY
	R57	100	DY
TDI	R47	220	DY
	R56	100	DY
TCK	R58	51	51
MPWRG	R52	ASM	DY
	R54	ASM	DY
	CN25	ASM	DY

SIT Logic

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Title: XDP Connector

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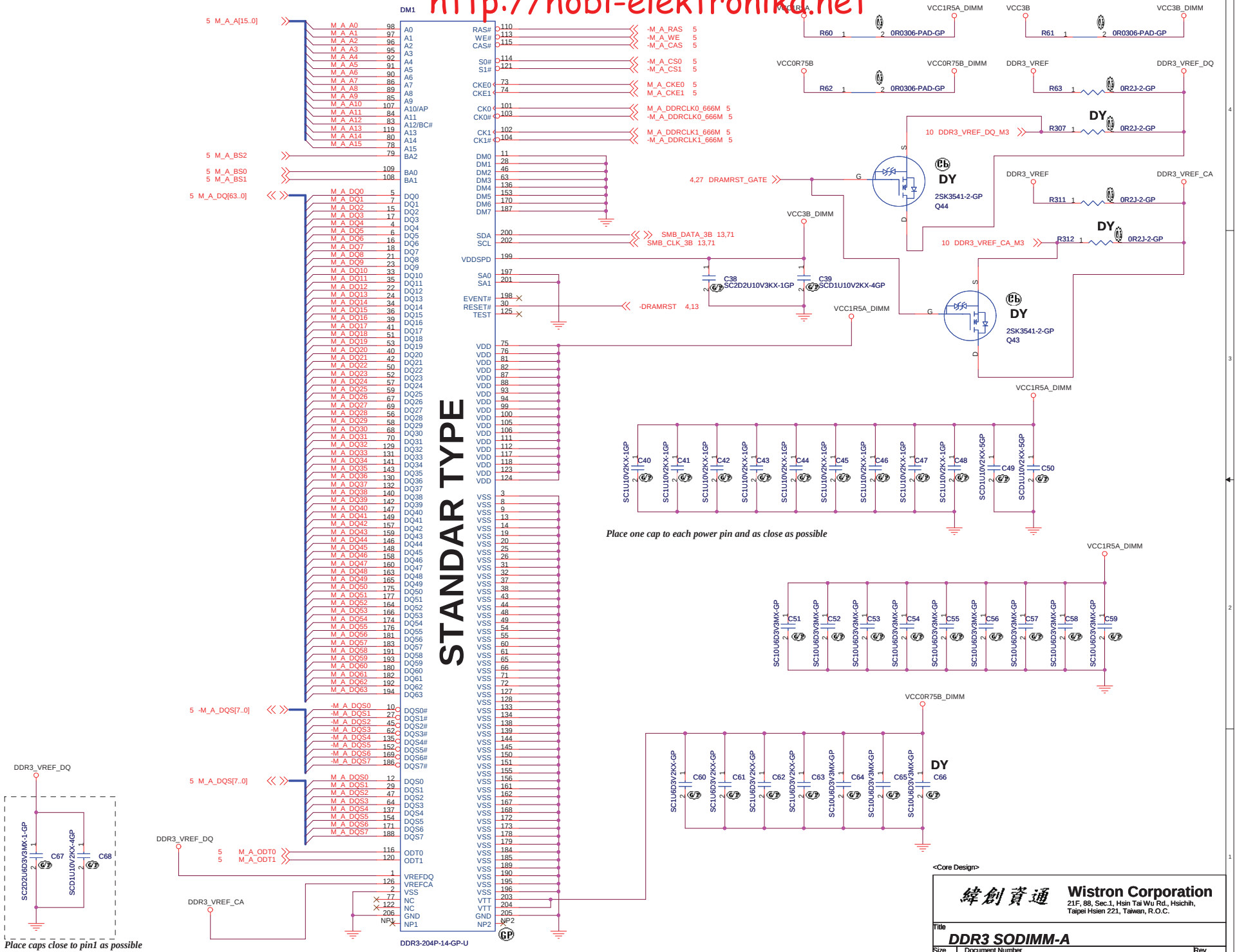

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Title: DDR3 SODIMM-A

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DM2

REVERSE TYPE

DDR3-204P-15-GP-U

6 M_B_A[15..0]
M_B_A0 98
M_B_A1 97
M_B_A2 96
M_B_A3 95
M_B_A4 92
M_B_A5 91
M_B_A6 90
M_B_A7 86
M_B_A8 89
M_B_A9 85
M_B_A10 107
M_B_A11 84
M_B_A12 83
M_B_A13 119
M_B_A14 80
M_B_A15 78

6 M_B_BS2 79
6 M_B_BS0 109
6 M_B_BS1 108

6 M_B_DQ[63..0]
M_B_DQ0 5
M_B_DQ1 7
M_B_DQ2 15
M_B_DQ3 17
M_B_DQ4 4
M_B_DQ5 6
M_B_DQ6 16
M_B_DQ7 18
M_B_DQ8 21
M_B_DQ9 23
M_B_DQ10 33
M_B_DQ11 35
M_B_DQ12 22
M_B_DQ13 24
M_B_DQ14 34
M_B_DQ15 36
M_B_DQ16 39
M_B_DQ17 41
M_B_DQ18 51
M_B_DQ19 53
M_B_DQ20 40
M_B_DQ21 42
M_B_DQ22 50
M_B_DQ23 52
M_B_DQ24 57
M_B_DQ25 59
M_B_DQ26 67
M_B_DQ27 69
M_B_DQ28 56
M_B_DQ29 58
M_B_DQ30 68
M_B_DQ31 70
M_B_DQ32 129
M_B_DQ33 131
M_B_DQ34 141
M_B_DQ35 143
M_B_DQ36 130
M_B_DQ37 132
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M_B_DQ40 147
M_B_DQ41 149
M_B_DQ42 157
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M_B_DQ46 158
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M_B_DQ51 177
M_B_DQ52 164
M_B_DQ53 166
M_B_DQ54 174
M_B_DQ55 176
M_B_DQ56 181
M_B_DQ57 183
M_B_DQ58 191
M_B_DQ59 193
M_B_DQ60 180
M_B_DQ61 182
M_B_DQ62 192
M_B_DQ63 194

6 -M_B_DQS[7..0]
-M_B_DQS0 10
-M_B_DQS1 27
-M_B_DQS2 45
-M_B_DQS3 62
-M_B_DQS4 135
-M_B_DQS5 152
-M_B_DQS6 169
-M_B_DQS7 186

6 M_B_DQS[7..0]
M_B_DQS0 12
M_B_DQS1 29
M_B_DQS2 47
M_B_DQS3 64
M_B_DQS4 137
M_B_DQS5 154
M_B_DQS6 171
M_B_DQS7 188

6 M_B_ODT0 116
6 M_B_ODT1 120

1 VREFDQ
126 VREFCA
2 VSS
77 NC
122 NC
206 GND
NP1 NP1

RAS# 110
WE# 113
CAS# 115
-M_B_RAS 6
-M_B_WE 6
-M_B_CAS 6

S0# 114
S1# 121
-M_B_CS0 6
-M_B_CS1 6

CKE0 73
CKE1 74
M_B_CKE0 6
M_B_CKE1 6

CK0 101
CK0# 103
M_B_DDRCLK0_666M 6
-M_B_DDRCLK0_666M 6

CK1 102
CK1# 104
M_B_DDRCLK1_666M 6
-M_B_DDRCLK1_666M 6

DM0 11
DM1 28
DM2 46
DM3 63
DM4 136
DM5 153
DM6 170
DM7 187

SDA 200
SCL 202
SMB_DATA_3B 12,71
SMB_CLK_3B 12,71

VDDSPD 199
R64 1 10KR2J-3-GP
SA0 197
SA1 201

EVENT# 198
RESET# 30
TEST 125
-DRAMRST 4,12

VDD 75,76,81,82,87,88,93,94,99,100,105,106,111,112,117,118,123,124
VSS 3,8,9,13,14,19,20,25,26,31,32,37,38,43,44,48,49,54,55,60,61,65,66,71,72,127,128,133,134,138,139,144,145,150,151,155,156,161,162,167,168,172,173,178,179,184,185,189,190,195,196,203
VTT 204,205
GND NP2

VCC3B_DIMM
C69 SC2D2U10V3KX-1GP
C70 SCD1U10V2KX-4GP

VCC1R5A_DIMM
C71 SC1U10V2KX-1GP
C72 SC1U10V2KX-1GP
C73 SC1U10V2KX-1GP
C74 SC1U10V2KX-1GP
C75 SC1U10V2KX-1GP
C76 SC1U10V2KX-1GP
C77 SC1U10V2KX-1GP
C78 SC1U10V2KX-1GP
C79 SC1U10V2KX-1GP
C80 SCD1U10V2KX-5GP
C81 SCD1U10V2KX-5GP

Place one cap to each power pin and as close as possible

VCC1R5A_DIMM
C82 SC10U6D3V3MX-GP
C83 SC10U6D3V3MX-GP
C84 SC10U6D3V3MX-GP
C85 SC10U6D3V3MX-GP
C86 SC10U6D3V3MX-GP
C87 SC10U6D3V3MX-GP
C88 SC10U6D3V3MX-GP
C89 SC10U6D3V3MX-GP
C90 SC10U6D3V3MX-GP

VCC0R75B_DIMM
C91 SC1U6D3V2KX-GP
C92 SC1U6D3V2KX-GP
C93 SC1U6D3V2KX-GP
C94 SC1U6D3V2KX-GP
C95 SC10U6D3V3MX-GP
C96 SC10U6D3V3MX-GP
C97 SC10U6D3V3MX-GP
DY

DDR3_VREF_CA
C98 SC2D2U6D3V3MX-1-GP
C99 SCD1U10V2KX-4GP

Place caps close to pin126 as possible

DDR3_VREF_DQ
DDR3_VREF_CA

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Title: DDR3 SODIMM-B
Size: Custom | Document Number: Dasher-1 | Rev: SD
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Size: A3	Document Number: Dasher-1	Rev: SD
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Size	Document Number	Rev
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Size: A3	Document Number: Dasher-1	Rev: SD
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Size	Document Number	Rev
A3	Dasher-1	SD

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Title: BLANK

Size	Document Number	Rev
A3	Dasher-1	SD

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Title: BLANK		
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X1
1st KDS 1TJF090DP1AI00T
C202: 8p C203: 9p
65PN is 65.4KJZZ.001

2nd EPSON FC-135-32.7680KA-9PF
C202: 9p C203: 10p
65PN is 65.4KJZZ.002

DO NOT CHANGE THESE PARTS

Place on Top side

Place on Bootom side
Do NOT move after fix

WWAN mSATA (CN11=ASM)	Yes	No
C212	ASM	DY
C211	ASM	DY
C213	ASM	DY
C214	ASM	DY

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Title: PCH(1/9):HDA/JTAG/SPI/SATA
Size: A3 | Document Number: Dasher-1 | Rev: SD
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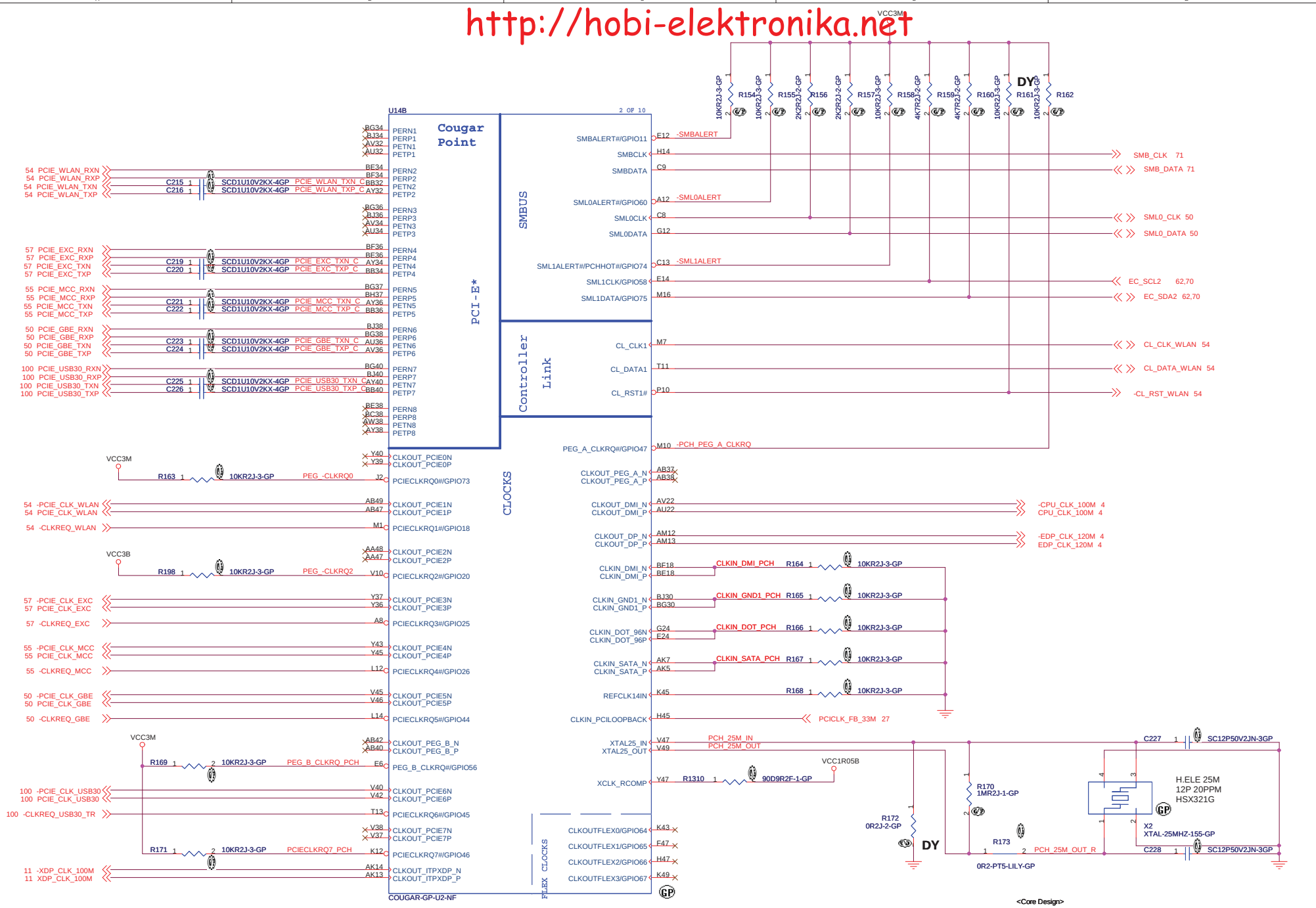


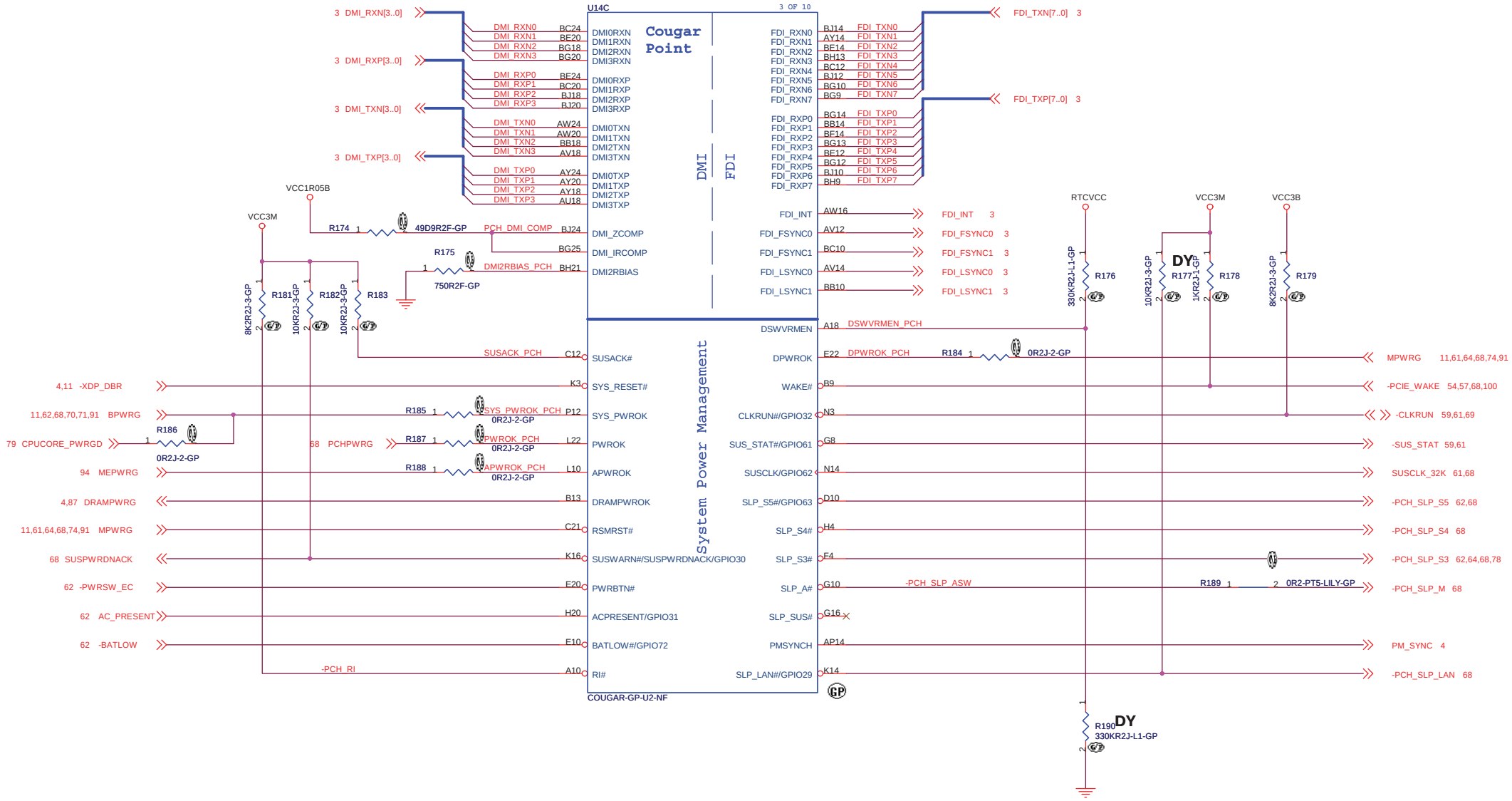
<Core Design>

Wistron Corporation
21F, 88, Sec.1, Hsin Tai Wu Rd., Hsichih,
Taipei Hsien 221, Taiwan, R.O.C.

Title: PCH(2/9):PCI-E/SMBUS/CLK

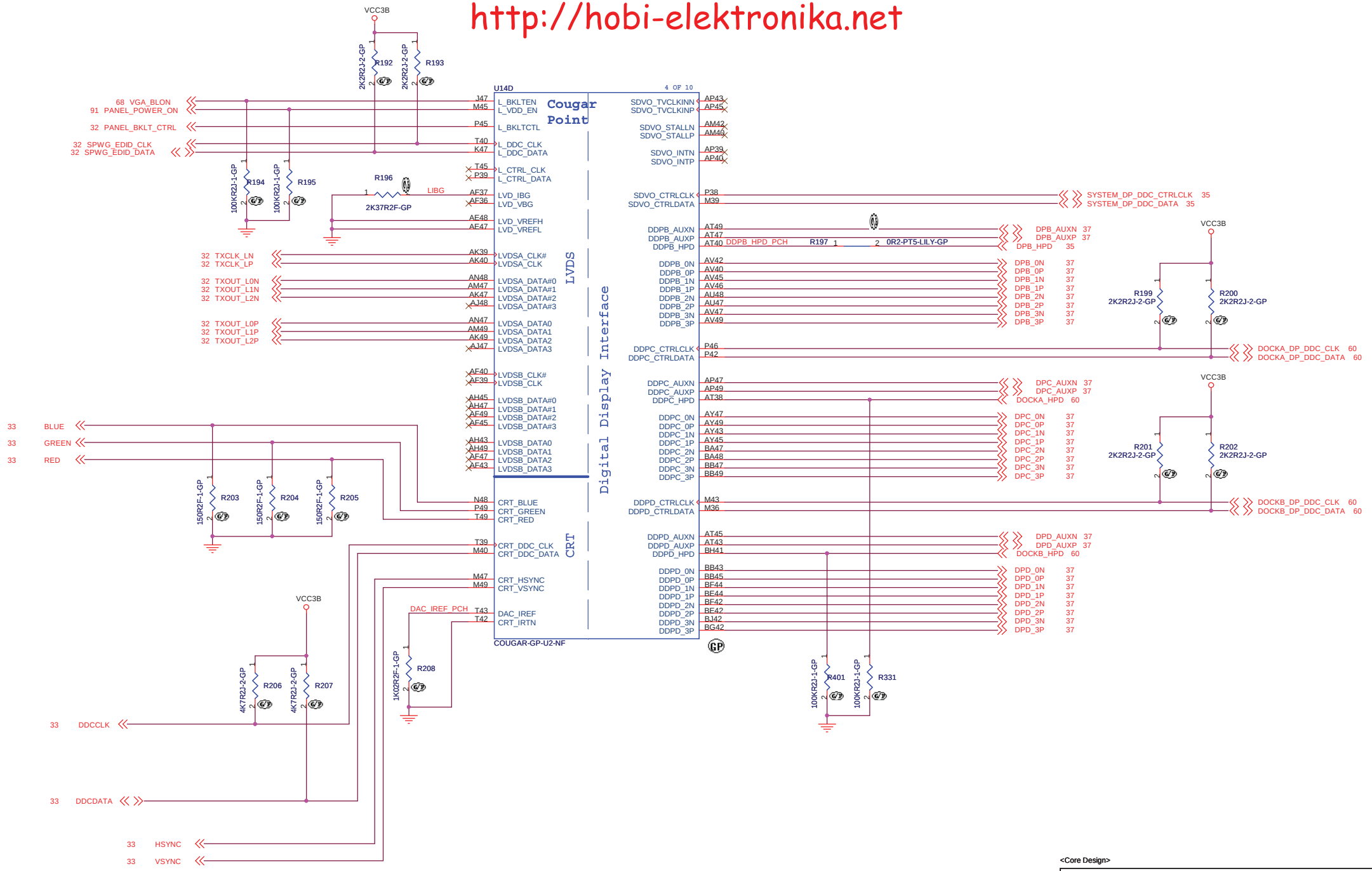
Size: Custom | Document Number: Dasher-1 | Rev: SD

Date: Monday, January 10, 2011 | Sheet 24 of 101



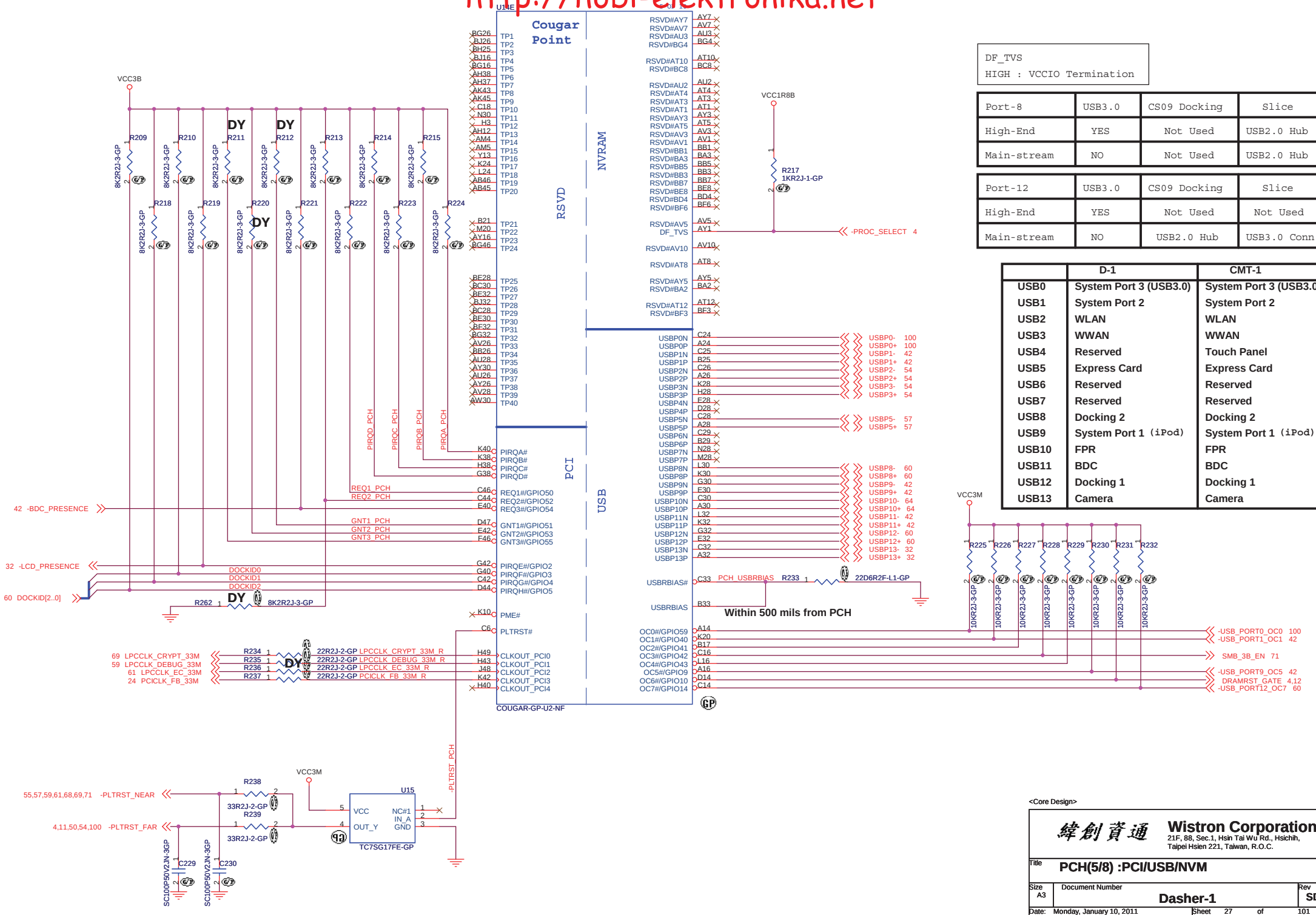
<Core Design>

緯創資通 Wistron Corporation 21F, 88, Sec.1, Hsin Tai Wu Rd., Hsichih, Taipei Hsien 221, Taiwan, R.O.C.		
Title: PCH(3/9):DMI/FDI/PM		
Size: A3	Document Number: Dasher-1	Rev: SD
Date: Monday, January 10, 2011	Sheet 25 of 101	



<Core Design>

緯創資通	**Wistron Corporation** 21F, 88, Sec.1, Hsin Tai Wu Rd., Hsichih, Taipei Hsien 221, Taiwan, R.O.C.
Title	**PCH(4/9):LVDS/CRT/DDI**
Size: A3	Document Number: **Dasher-1**
Rev: SD	
Date: Monday, January 10, 2011	Sheet 26 of 101



DF_TVS
HIGH : VCCIO Termination

Port-8	USB3.0	CS09 Docking	Slice
High-End	YES	Not Used	USB2.0 Hub
Main-stream	NO	Not Used	USB2.0 Hub

Port-12	USB3.0	CS09 Docking	Slice
High-End	YES	Not Used	Not Used
Main-stream	NO	USB2.0 Hub	USB3.0 Conn.

	D-1	CMT-1
USB0	System Port 3 (USB3.0)	System Port 3 (USB3.0)
USB1	System Port 2	System Port 2
USB2	WLAN	WLAN
USB3	WWAN	WWAN
USB4	Reserved	Touch Panel
USB5	Express Card	Express Card
USB6	Reserved	Reserved
USB7	Reserved	Reserved
USB8	Docking 2	Docking 2
USB9	System Port 1 (iPod)	System Port 1 (iPod)
USB10	FPR	FPR
USB11	BDC	BDC
USB12	Docking 1	Docking 1
USB13	Camera	Camera

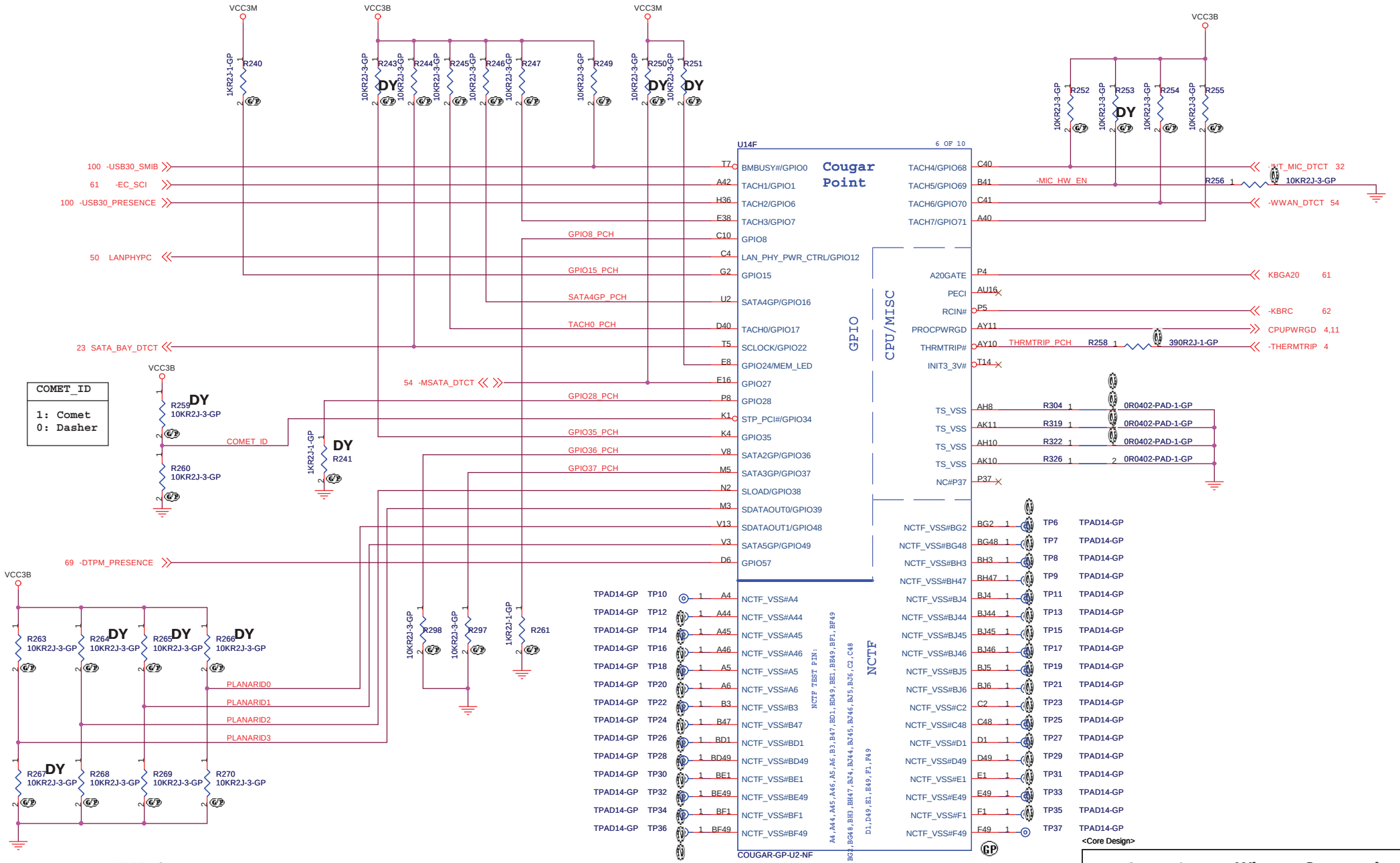
<Core Design>

緯創資通 Wistron Corporation
21F, 88, Sec.1, Hsin Tai Wu Rd., Hsichih,
Taipei Hsien 221, Taiwan, R.O.C.

Title: PCH(5/8) :PCI/USB/NVM

Size: A3 | Document Number: Dasher-1 | Rev: SD

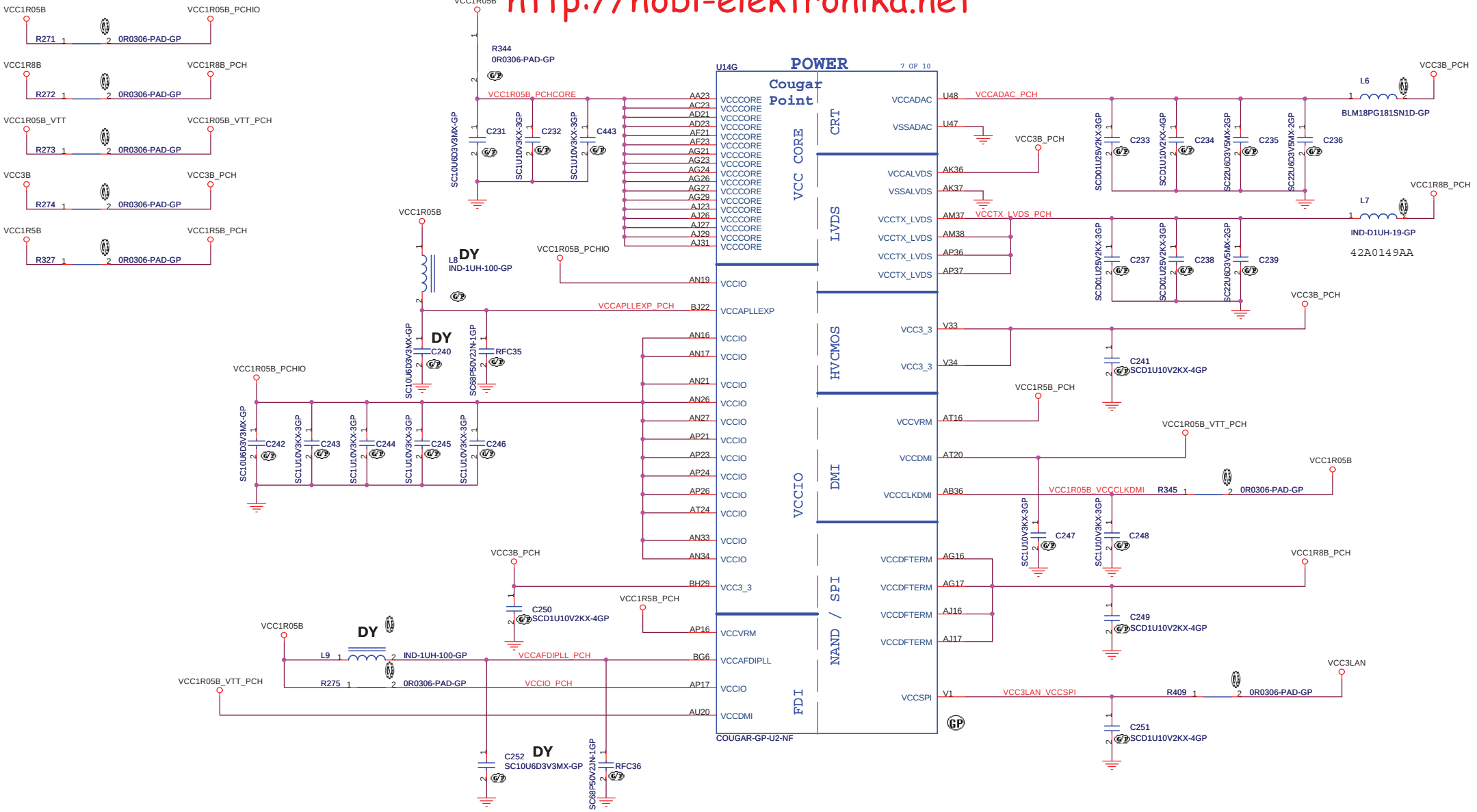
Date: Monday, January 10, 2011 | Sheet 27 of 101



緯創資通 Wistron Corporation
21F, 88, Sec.1, Hsin Tai Wu Rd., Hsichih,
Taipei Hsien 221, Taiwan, R.O.C.

Title	PCH(6/9):GPIO/NCTF/RSVD
Size	A3
Document Number	Darsher-1
Rev	SD
Date:	Monday, January 10, 2011
Sheet	28 of 101

<Core Design>



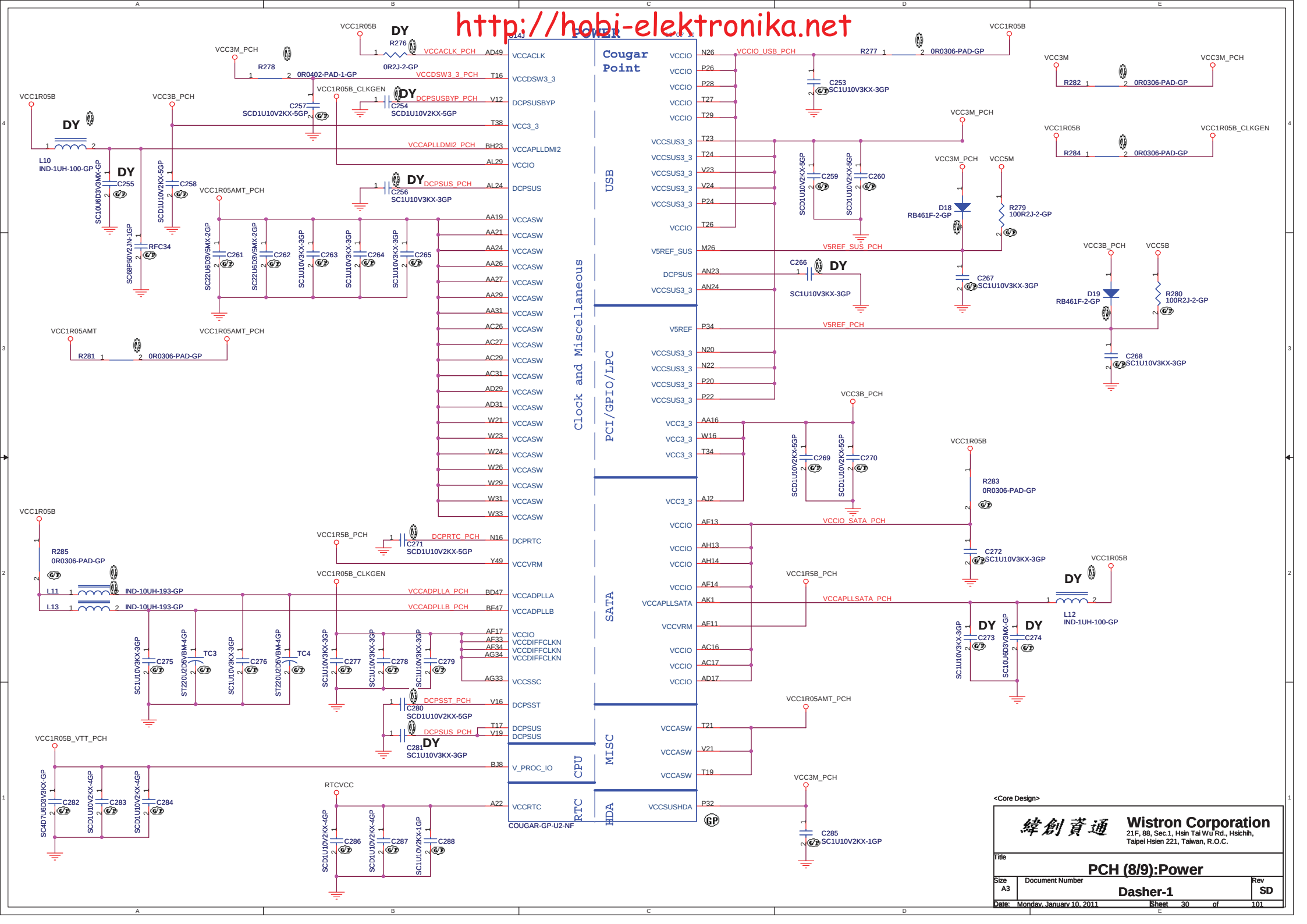
<Core Design>

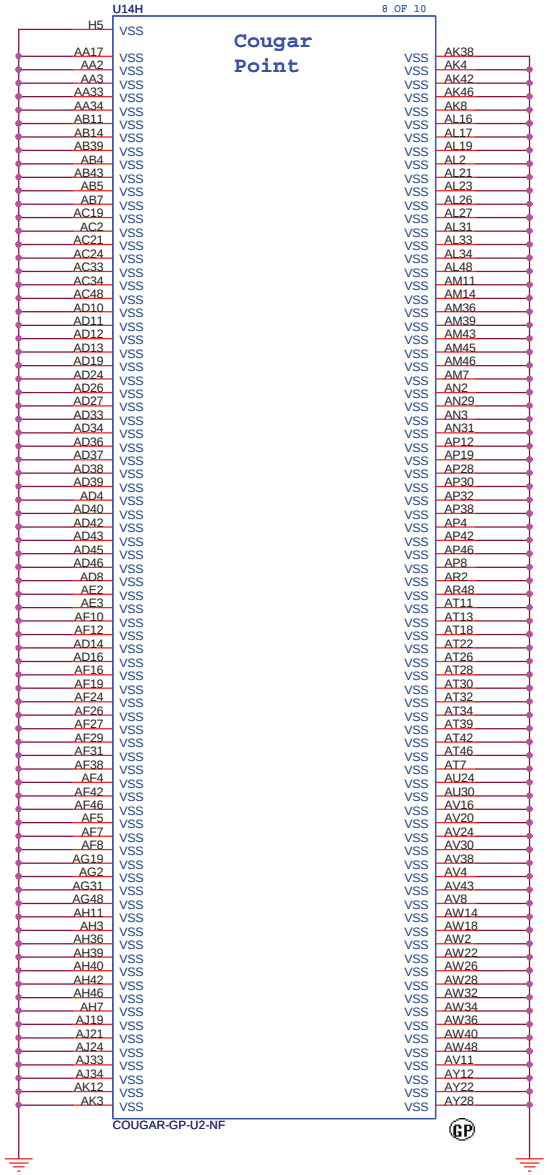
緯創資通 Wistron Corporation
21F, 88, Sec.1, Hsin Tai Wu Rd., Hsichih,
Taipei Hsien 221, Taiwan, R.O.C.

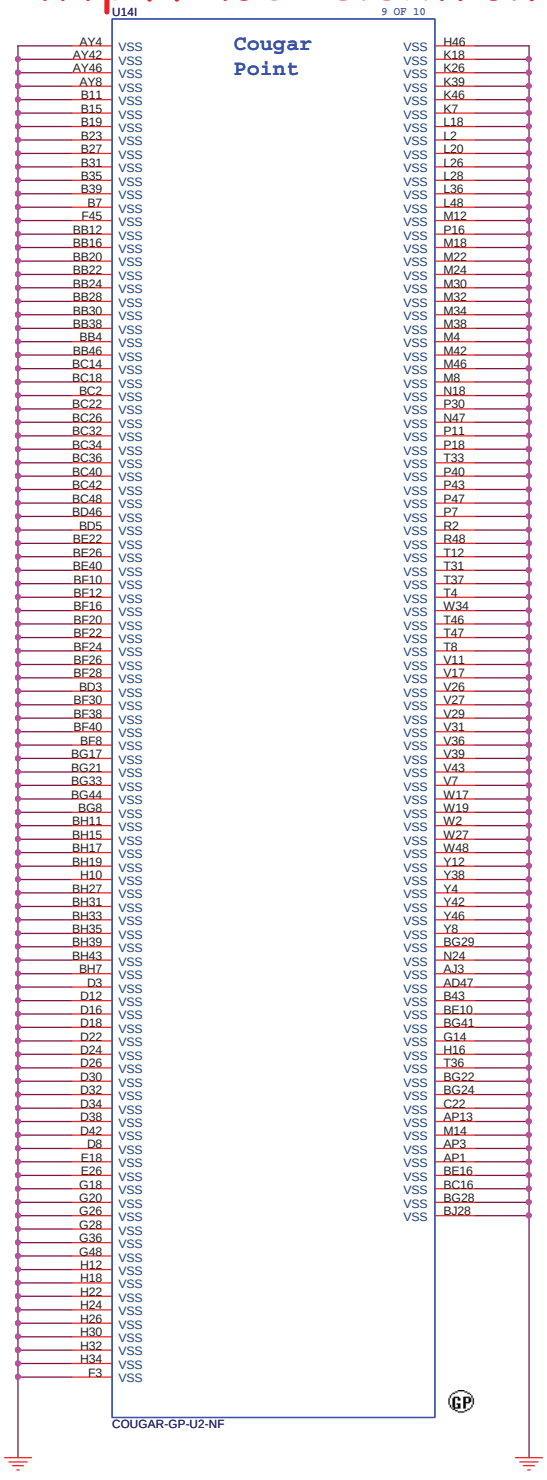
Title: PCH(7/9):Power

Size: A3 | Document Number: Dasher-1 | Rev: SD

Date: Monday, January 10, 2011 | Sheet 29 of 101







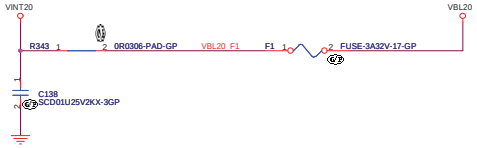
<Core Design>

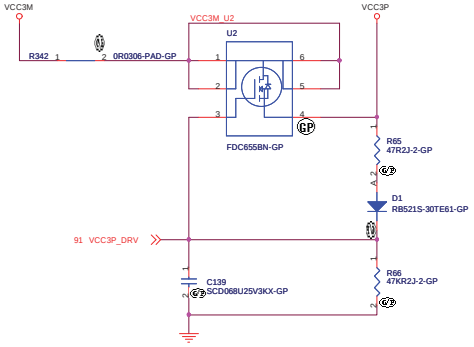
緯創資通 Wistron Corporation
21F, 88, Sec.1, Hsin Tai Wu Rd., Hsichih,
Taipei Hsien 221, Taiwan, R.O.C.

Title: PCH (9/9):GND

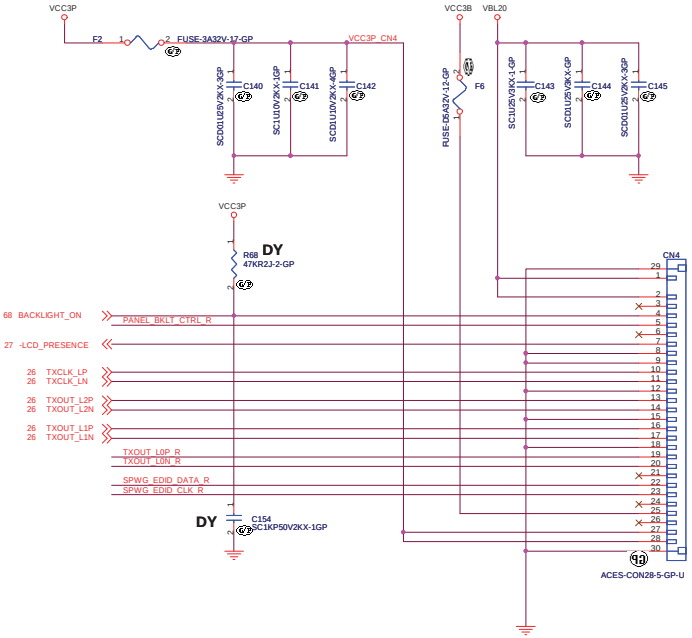
Size	Document Number	Rev
A3	Dasher-1	SD

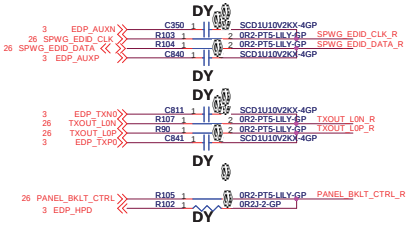
Date: Monday, January 10, 2011 Sheet 31 of 101



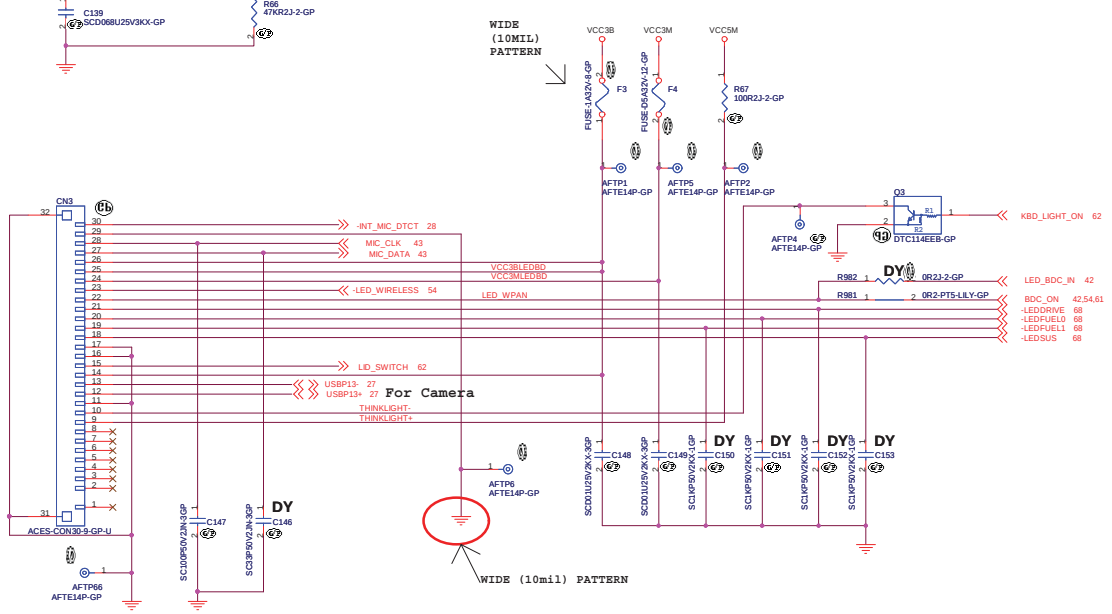


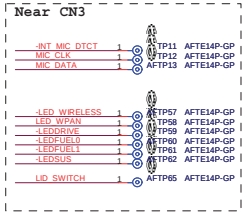
LCD Connector

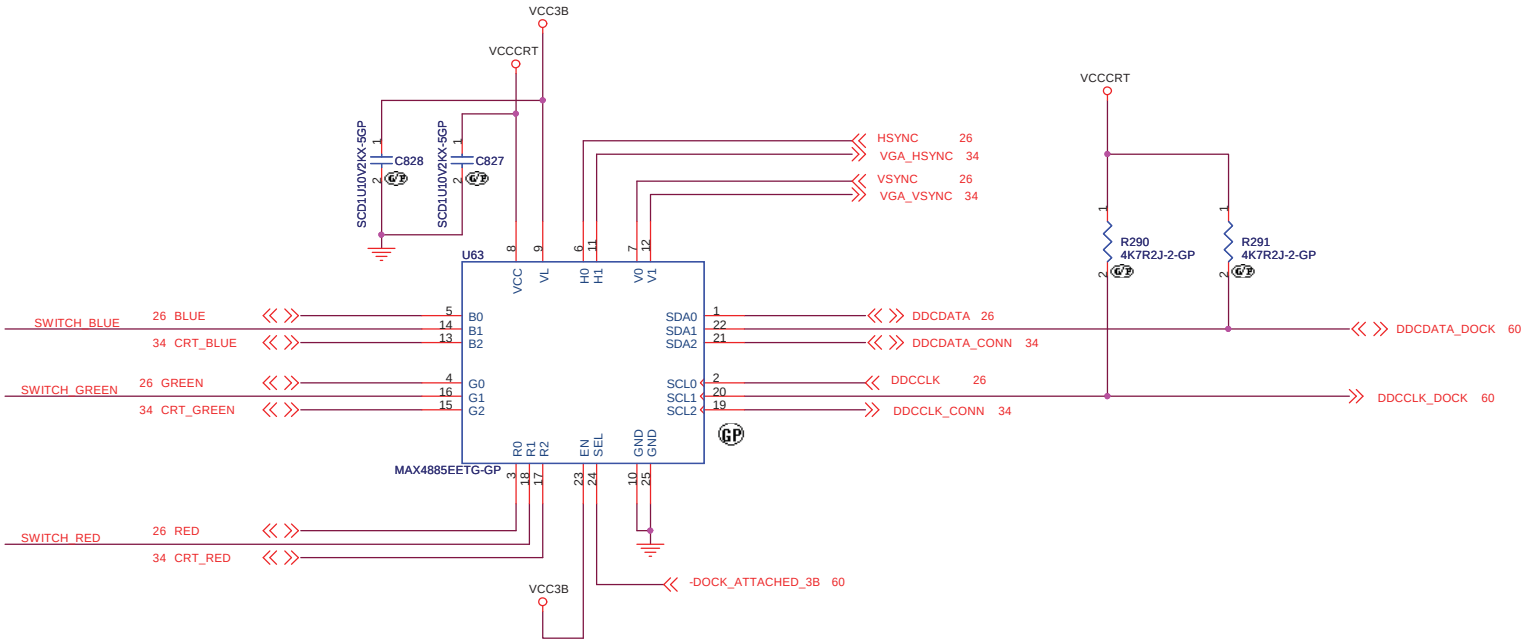


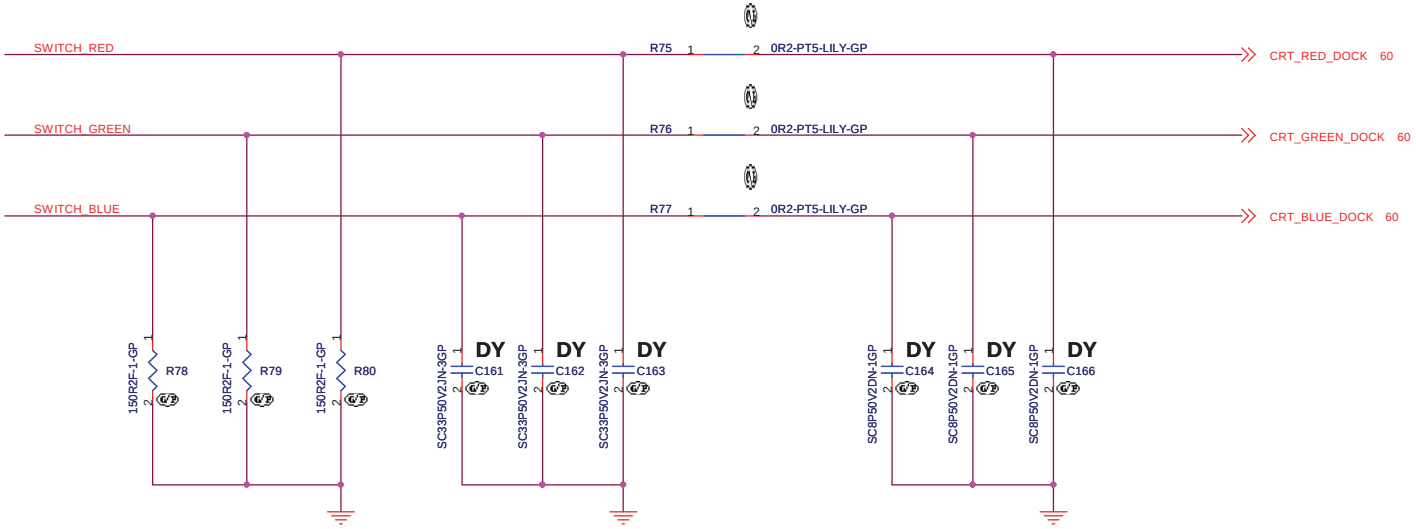


PolySW









<Core Design>

Wistron Corporation
21F, 88, Sec.1, Hsin Tai Wu Rd., Hsichih,
Taipei Hsien 221, Taiwan, R.O.C.

Title: CRT SELECTOR

Size	Document Number	Rev
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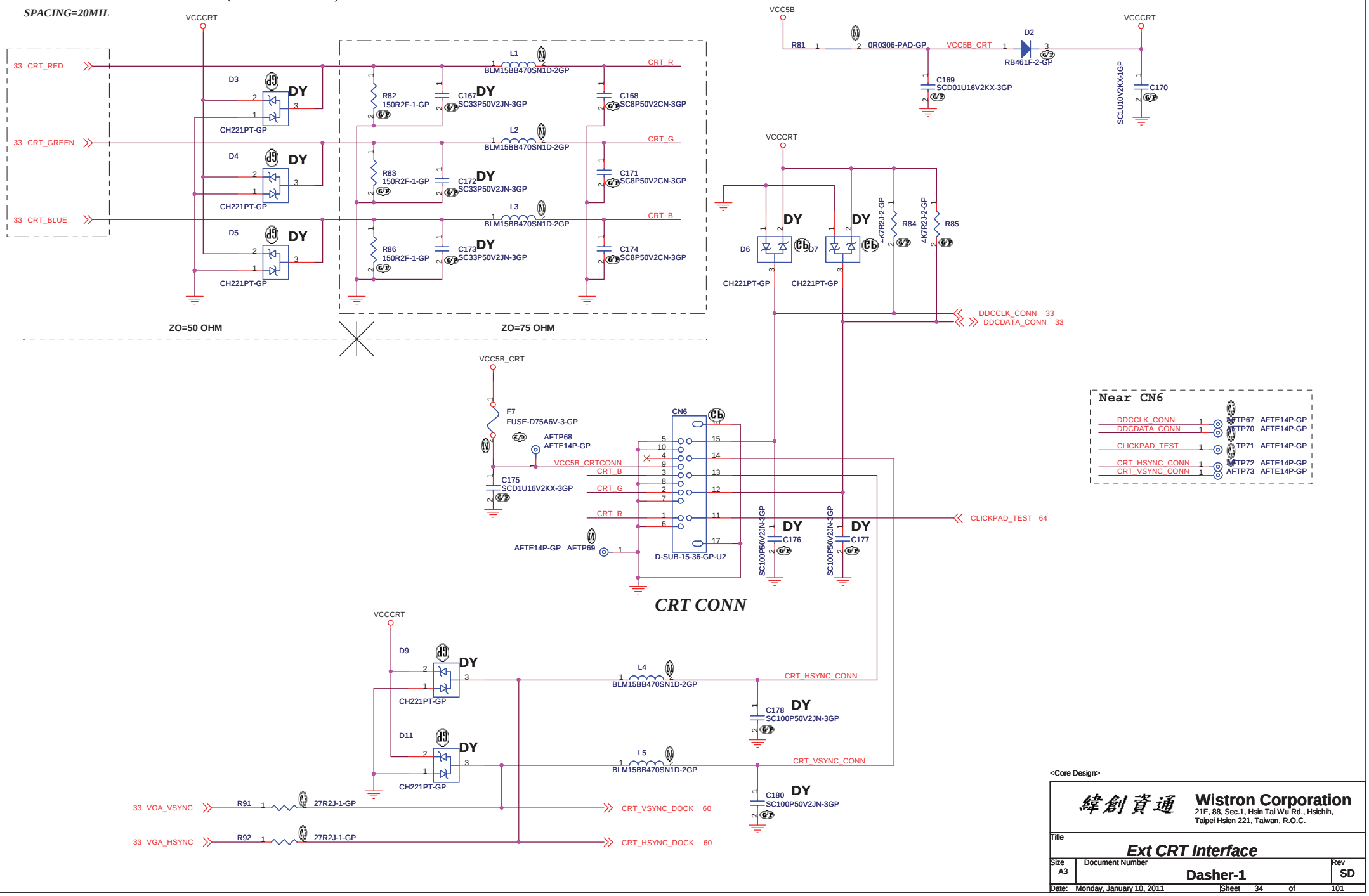
Date: Monday, January 10, 2011 Sheet 33 of 101

GND GUARDING
EACH SIGNAL WIDTH DEPENDS ON ZO(TRACE IMPEDANCE)
SPACING=20MIL



<Core Design>

Wistron Corporation
21F, 88, Sec.1, Hsin Tai Wu Rd., Hsichih,
Taipei Hsien 221, Taiwan, R.O.C.

Title: *Ext CRT Interface*

Size	Document Number	Rev
A3	Dasher-1	SD

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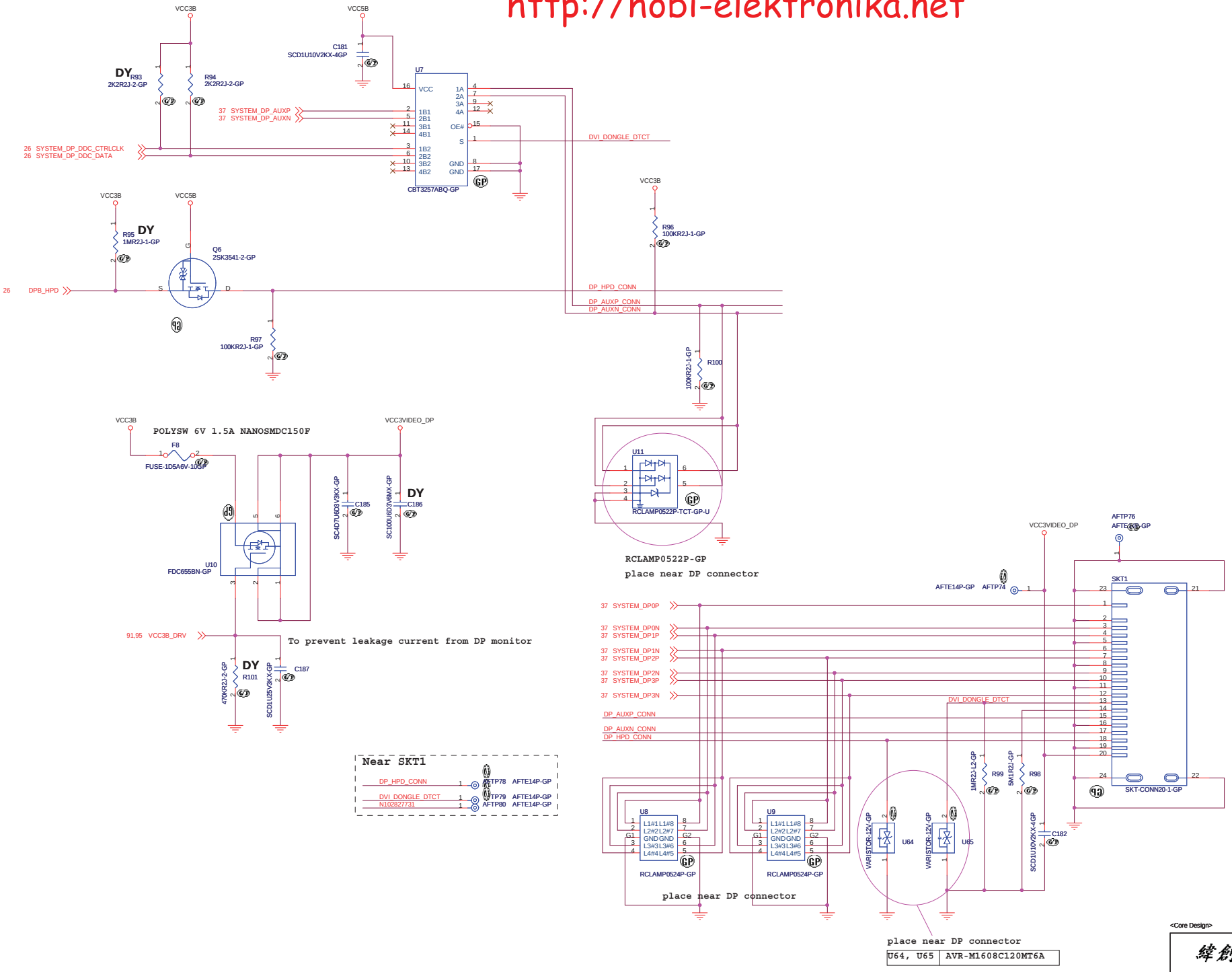

<Core Design>

Wistron Corporation
21F, 88, Sec.1, Hsin Tai Wu Rd., Hsichih,
Taipei Hsien 221, Taiwan, R.O.C.

Title: **Display Port Connector**

Size	Document Number	Rev
Custom	Dasher-1	SD

Date: Monday, January 10, 2011 Sheet 35 of 101

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<Core Design>

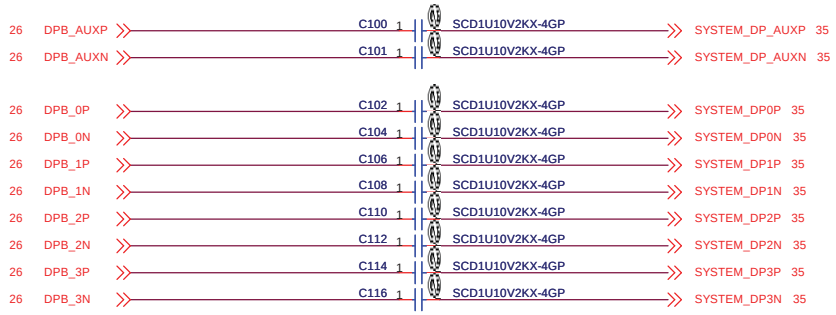
緯創資通 Wistron Corporation
21F, 88, Sec.1, Hsin Tai Wu Rd., Hsichih,
Taipei Hsien 221, Taiwan, R.O.C.

Title: BLANK

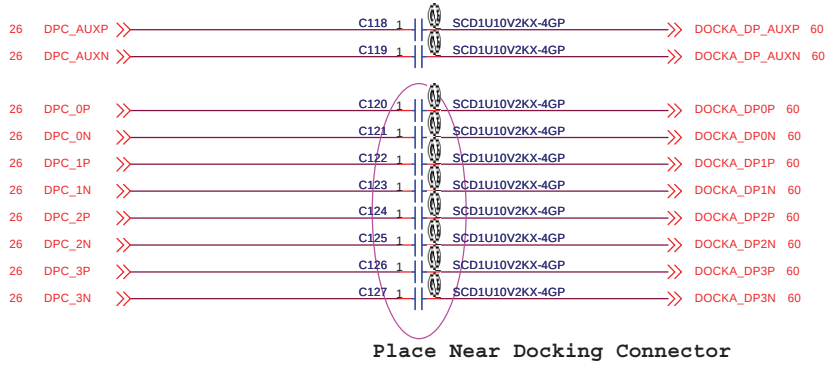
Size: A3 | Document Number: Dasher-1 | Rev: SD

Date: Monday, January 10, 2011 | Sheet 36 of 101

System DP Connector

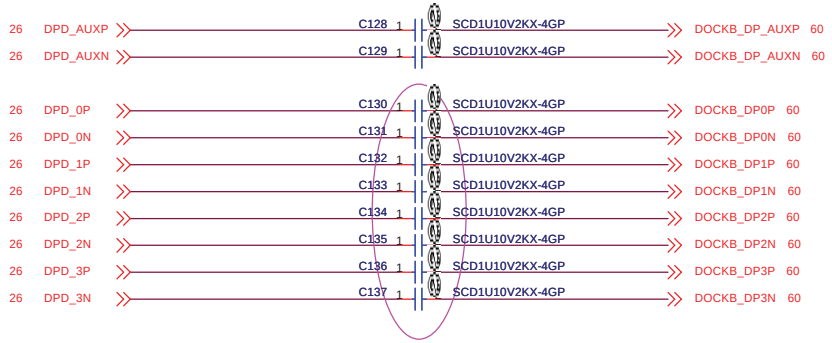


Docking DP Connector A



Place Near Docking Connector

Docking DP Connector B



Place Near Docking Connector

<Core Design>

緯創資通 **Wistron Corporation**
21F, 88, Sec.1, Hsin Tai Wu Rd., Hsichih,
Taipei Hsien 221, Taiwan, R.O.C.

Title: ***Display Port AC Coupling***

Size	Document Number	Rev
A3	Dasher-1	SD

Date: Monday, January 10, 2011 Sheet 37 of 101

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<Core Design>

緯創資通 Wistron Corporation
21F, 88, Sec.1, Hsin Tai Wu Rd., Hsichih,
Taipei Hsien 221, Taiwan, R.O.C.

Title		
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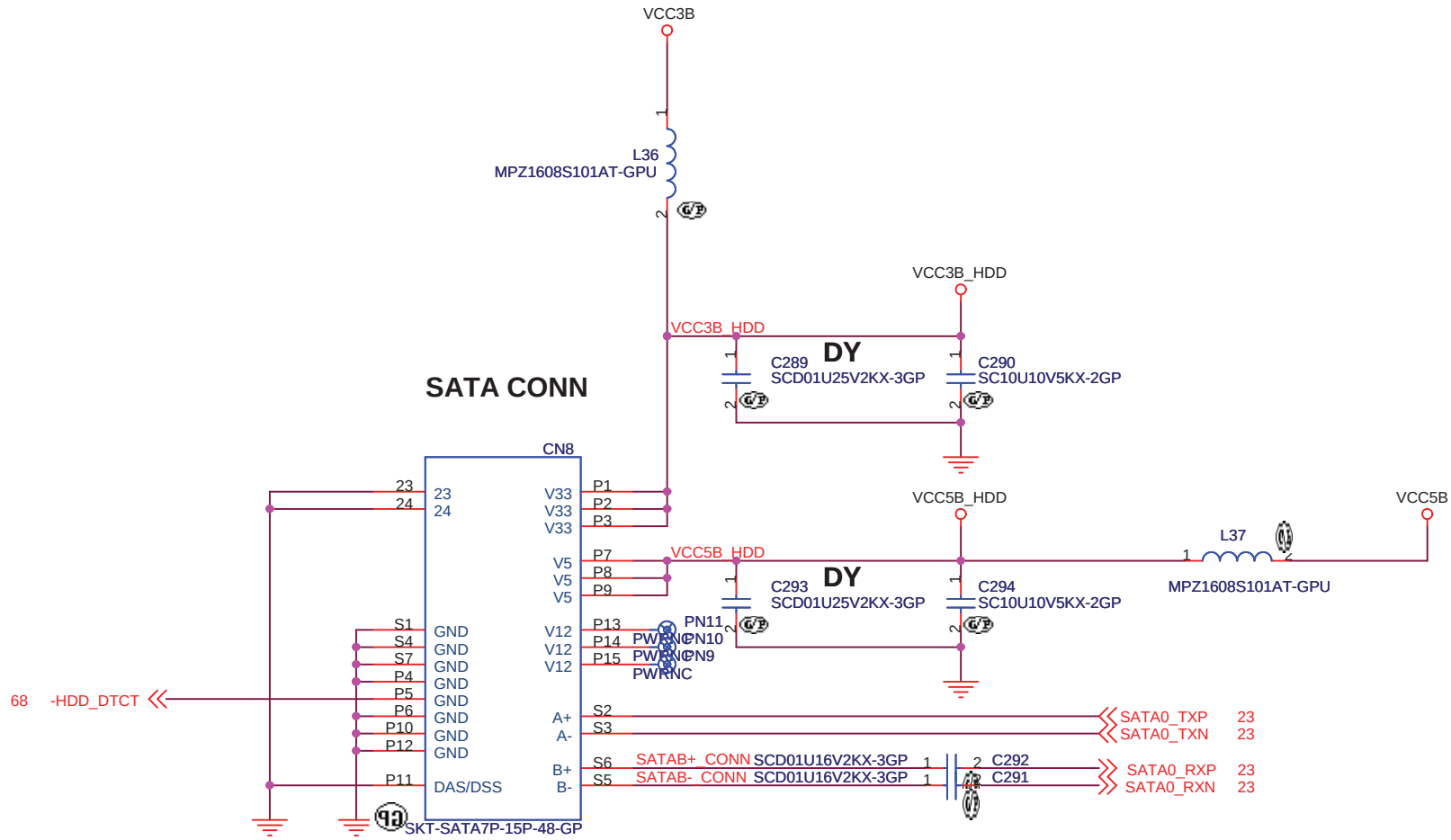
Size: A3	Document Number: Dasher-1	Rev: SD
Date: Monday, January 10, 2011	Sheet 38 of 101	



<Core Design>

緯創資通	**Wistron Corporation** 21F, 88, Sec.1, Hsin Tai Wu Rd., Hsichih, Taipei Hsien 221, Taiwan, R.O.C.
Title	***SATA Connector***
Size: A4	Document Number: **Dasher-1**
Rev: SD	
Date: Monday, January 10, 2011	Sheet 39 of 101

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<Core Design>

緯創資通 Wistron Corporation
21F, 88, Sec.1, Hsin Tai Wu Rd., Hsichih,
Taipei Hsien 221, Taiwan, R.O.C.

Title: BLANK		
Size: A3	Document Number: Dasher-1	Rev: SD
Date: Monday, January 10, 2011	Sheet 40 of 101	

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<Core Design>

緯創資通 Wistron Corporation
21F, 88, Sec.1, Hsin Tai Wu Rd., Hsichih,
Taipei Hsien 221, Taiwan, R.O.C.

Title: BLANK

Size	Document Number	Rev
A3	Dasher-1	SD

Date: Monday, January 10, 2011 Sheet 41 of 101

U18	Vendor	Vendor P/N
1st	TI	TPS2065DGN
2nd	Rohm	BD8012FVJ

WIDE PATTERN (MIN 500MA)
PLACE NEAR USB CONNECTOR

R294 0R3-PT5-LILY-GP
R299 0R3-PT5-LILY-GP
27 USBP1-
27 USBP1+
USB_PWR2
C300 SCD1U10V2KX-4GP
C301 SC470P50V2KX-3GP
C302 ST150U6D3VBM-1-GP
USBP1- TVS
USBP1+ TVS
J1 SKT-USB-206-GP

Near J1
USB_PWR2
AFTP7 AFTE14P-GP
AFTP10 AFTE14P-GP

VCC5M
C296 SCD1U10V2KX-5GP
U18 TPS2065DGN-2-GP
60,68,100 USB_ON1
-USB_PORT1_OC1 27
Should use non-discharge part.

U22 DY
USBP1+ TVS
USBP1- TVS
IP4223CZ6-GP

R292 0R3-PT5-LILY-GP
R293 0R3-PT5-LILY-GP
WIDE PATTERN (MIN 500MA)
PLACE NEAR USB CONNECTOR

DY
USBP9- R295 0R2J-2-GP USBP9- MUX
USBP9+ R296 0R2J-2-GP USBP9+ MUX

VCC5M
C847 SC4D7U10V5KX-1GP DY
C303 SCD1U10V2KX-4GP
USB_PWR1
U20 TPS2541RTER-GP
27 -USB_PORT9_OC5
68 USB_ON2
68 USB_AO_SEL
R992 33KR2J-3-GP
USBP9- 27
USBP9+ 27
Should use discharge part.

USB_PWR1
C297 SCD1U10V2KX-4GP
C298 SC470P50V2KX-3GP
C299 ST150U6D3VBM-1-GP
USBP9- TVS
USBP9+ TVS
SKT3 SKT-USB8-53-GP

C299, C302
1st NEC Tokin TEPSLB20J157M 77.C1571.09L
2nd SANYO 6TPE150MAZB 77.21571.111

Always on port

Near SKT3
USB_PWR1
USBP9- TVS
USBP9+ TVS
AFTP84 AFTE14P-GP
AFTP81 AFTE14P-GP
AFTP82 AFTE14P-GP
AFTP83 AFTE14P-GP

U19 DY
USBP9+ TVS
USBP9- TVS
IP4223CZ6-GP

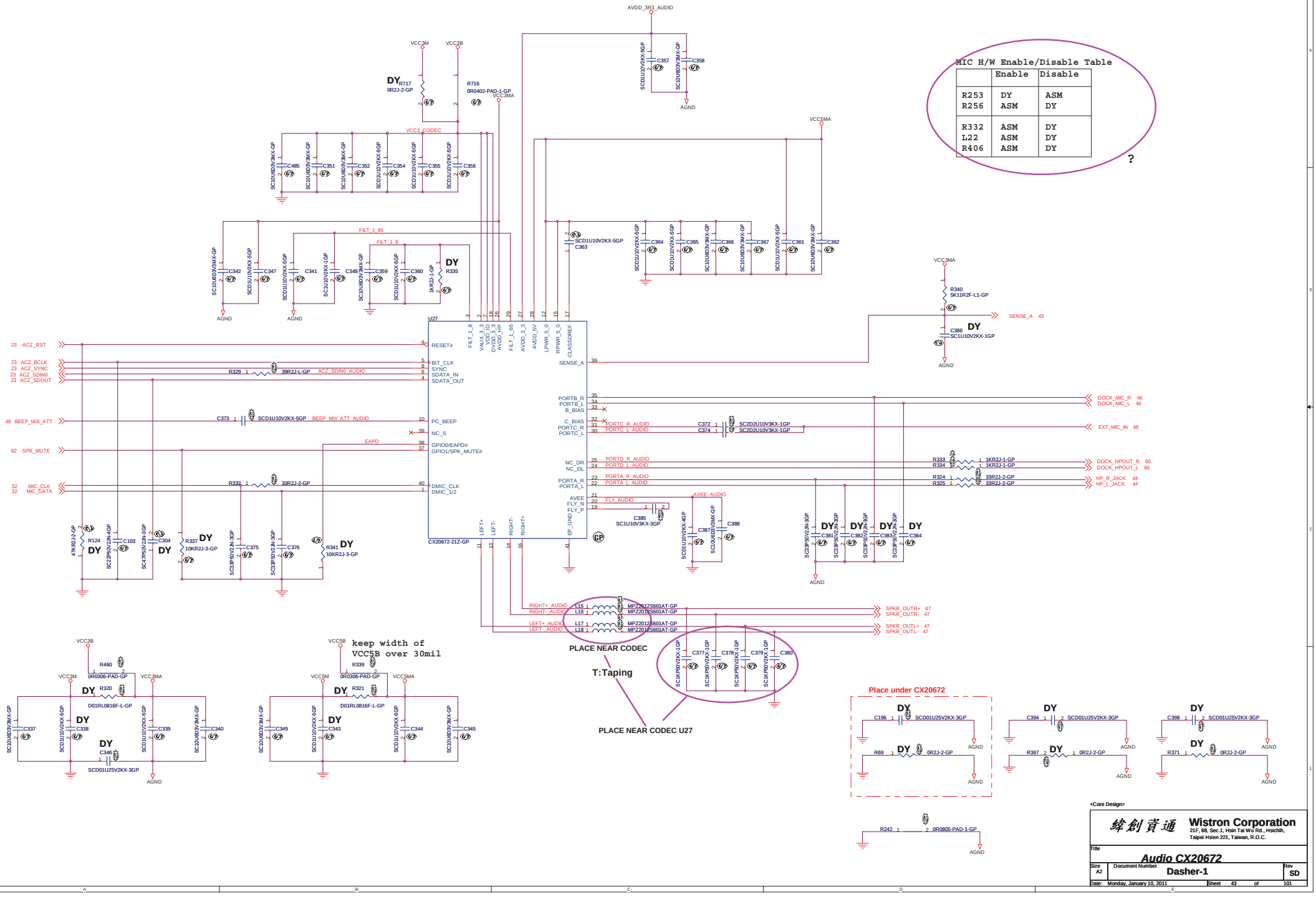
Near CN9
-BDC_PRESENCE AFTP85 AFTE14P-GP
WIFI_BUSY AFTP86 AFTE14P-GP
BDC_ON AFTP87 AFTE14P-GP
LED_BDC_IN AFTP88 AFTE14P-GP
BT_BUSY AFTP89 AFTE14P-GP
VCC3BT_C AFTP91 AFTE14P-GP
AFTP90 AFTE14P-GP

VCC3M
F10 POLYSW-D5A6V-1-GP
Bluetooth Module
CN9 HRS-CONN14D-GP-U
27 -BDC_PRESENCE
54 WIFI_BUSY
32,54,61 BDC_ON
32 LED_BDC_IN
BT_BUSY 54
VCC3BT_C
USBP11+ 27
USBP11- 27
C305 SC2D2U6D3V3MX-1-GP

<Core Design>

Wistron Corporation
21F, 88, Sec.1, Hsin Tai Wu Rd., Hsichih,
Taipei Hsien 221, Taiwan, R.O.C.

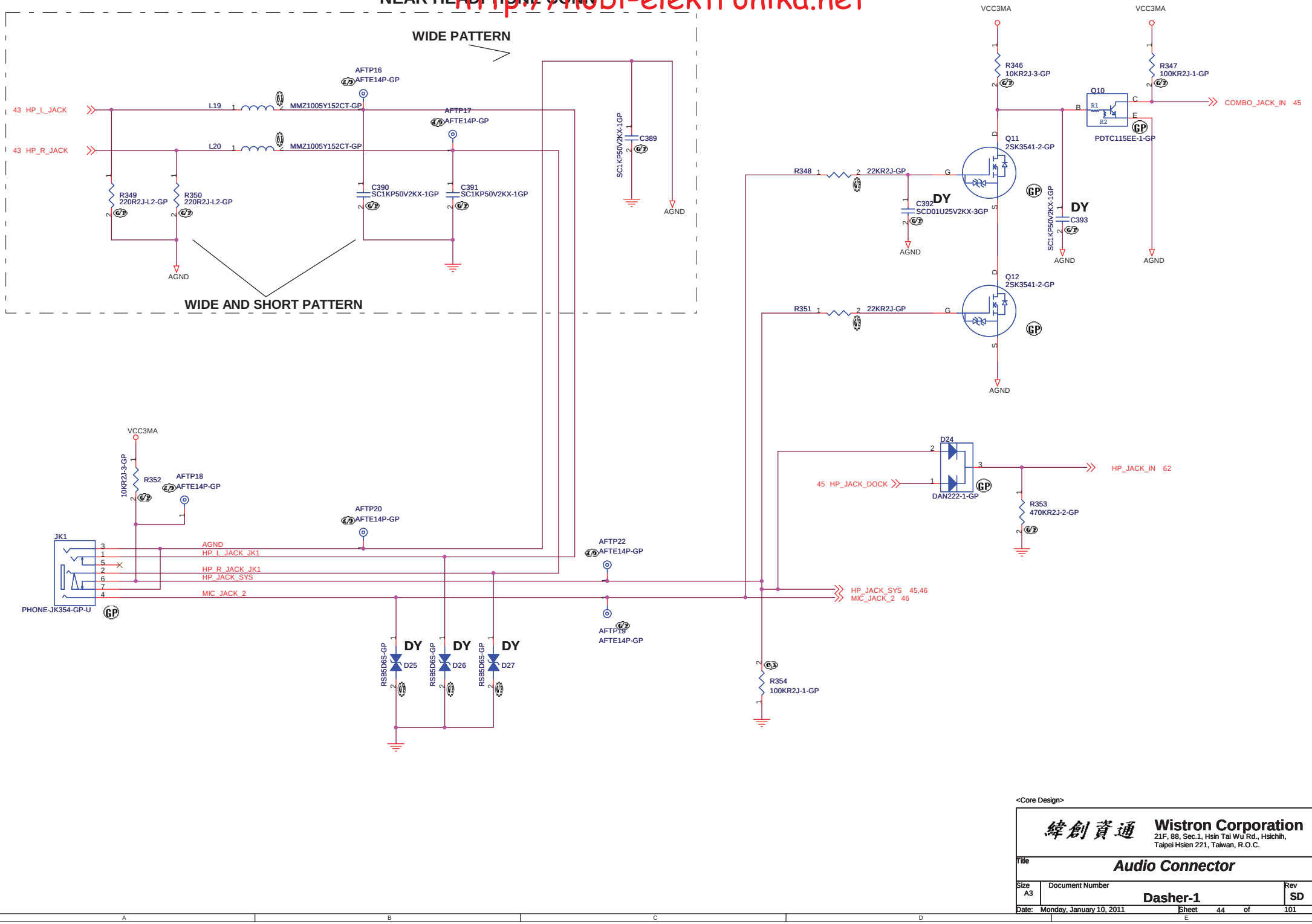
Title: USB Connector
Size: A3 | Document Number: Dasher-1 | Rev: SD
Date: Monday, January 10, 2011 | Sheet 42 of 101



NEAR HEADPHONE CONN

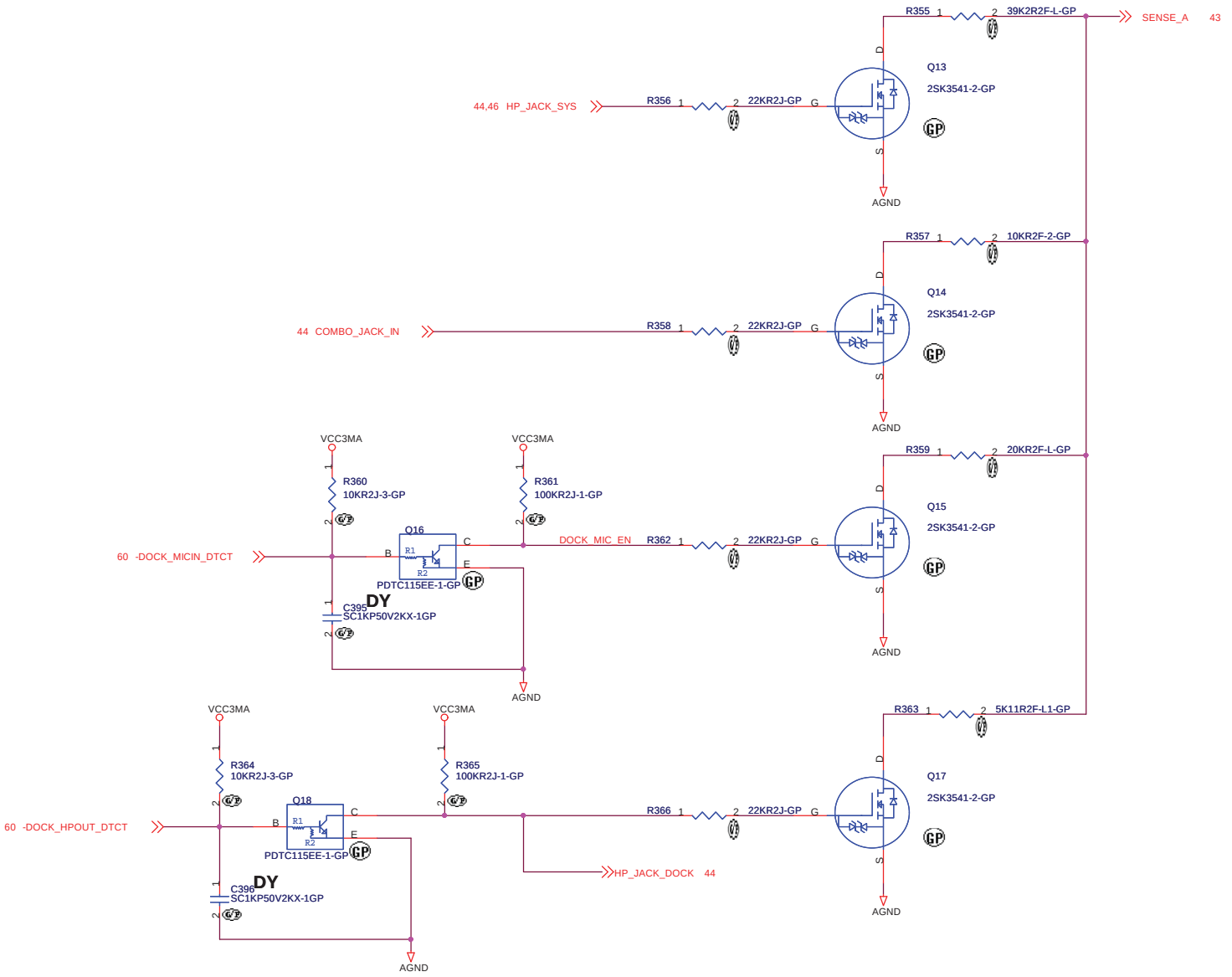
WIDE PATTERN

WIDE AND SHORT PATTERN



<Core Design>

緯創資通 Wistron Corporation 21F, 88, Sec.1, Hsin Tai Wu Rd., Hsichih, Taipei Hsien 221, Taiwan, R.O.C.		
Title: **Audio Connector**		
Size: A3	Document Number: **Dasher-1**	Rev: SD
Date: Monday, January 10, 2011	Sheet 44 of 101	



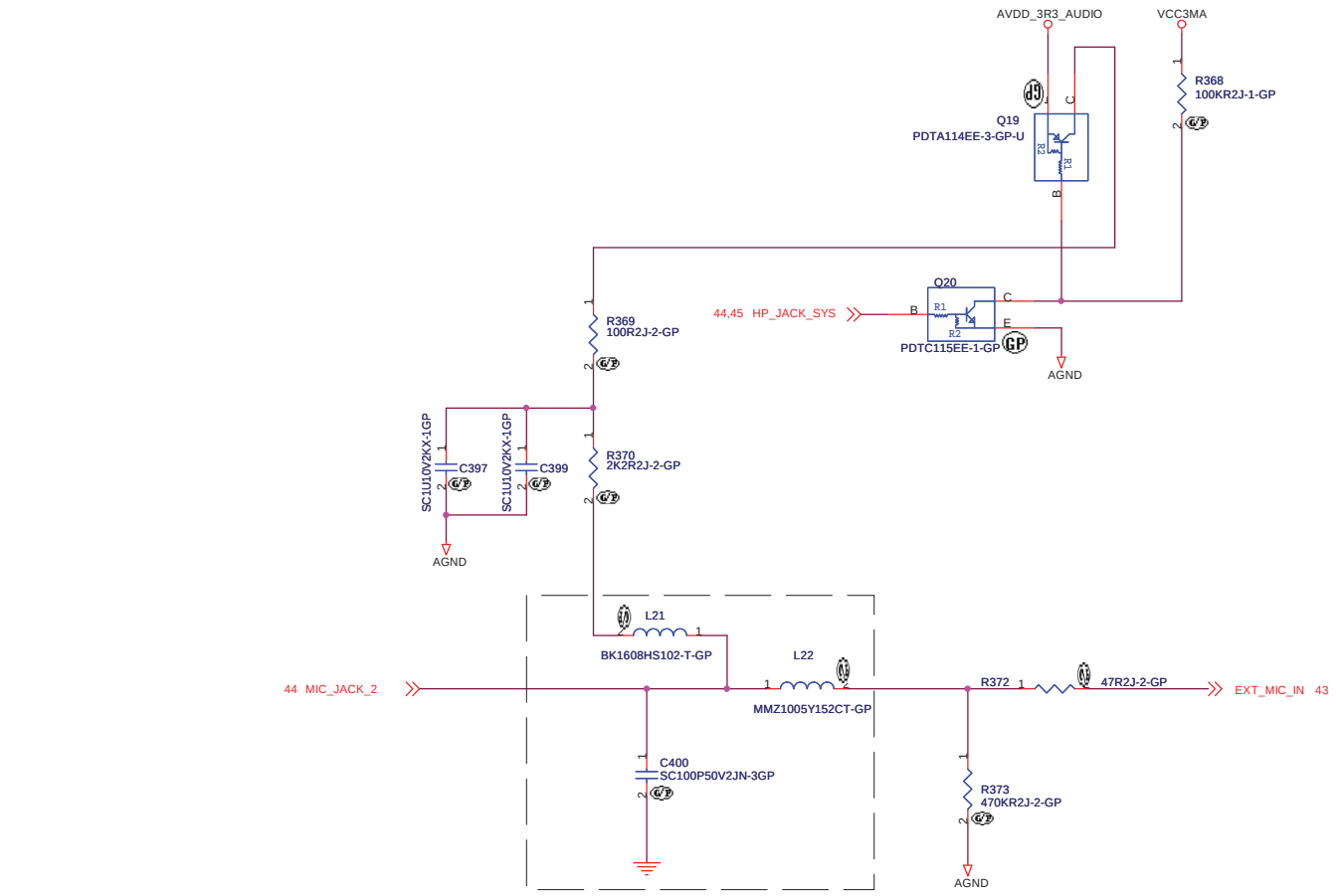
<Core Design>

緯創資通 **Wistron Corporation**
21F, 88, Sec.1, Hsin Tai Wu Rd., Hsichih,
Taipei Hsien 221, Taiwan, R.O.C.

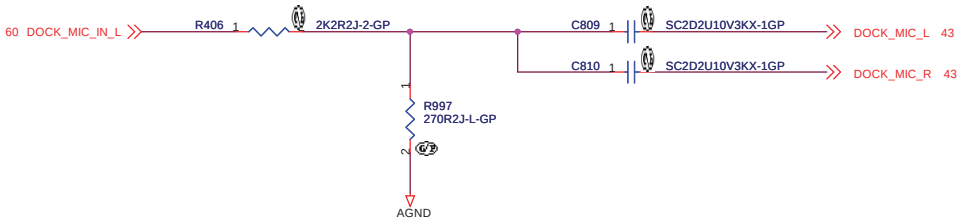
Title: ***Audio Jack Sense***

Size	Document Number	Rev
A3	Dasher-1	SD

Date: Monday, January 10, 2011 Sheet 45 of 101



NEAR EXT MIC CONN



<Core Design>

緯創資通 **Wistron Corporation**
21F, 88, Sec.1, Hsin Tai Wu Rd., Hsichih,
Taipei Hsien 221, Taiwan, R.O.C.

Title: ***Audio Ext MIC I/F***

Size	Document Number	Rev
A3	Dasher-1	SD

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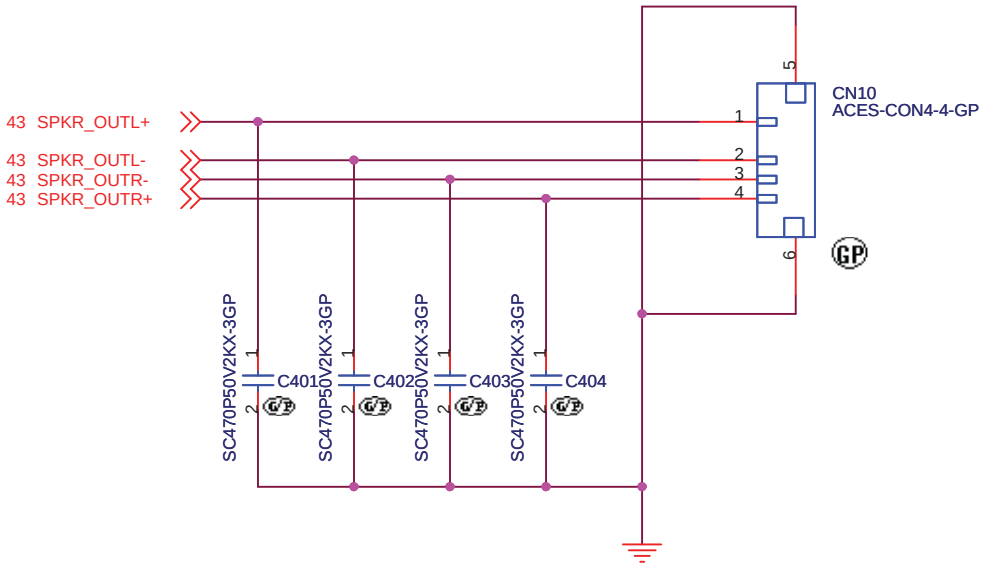

<Core Design>

緯創資通 **Wistron Corporation**
21F, 88, Sec.1, Hsin Tai Wu Rd., Hsichih,
Taipei Hsien 221, Taiwan, R.O.C.

Title: ***AUDIO SPEAKER***

Size	Document Number	Rev
A4	Dasher-1	SD

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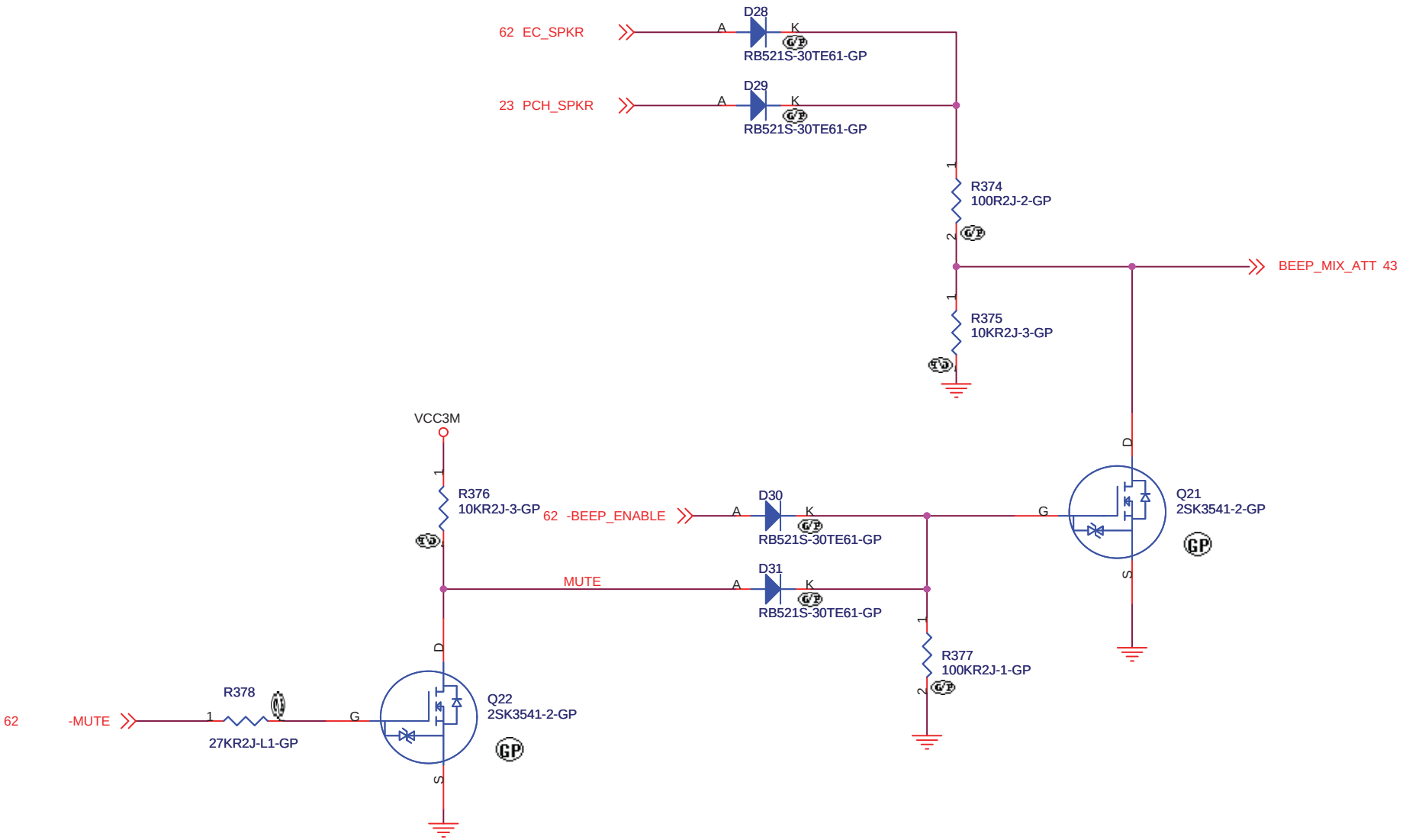

<Core Design>

緯創資通 Wistron Corporation
21F, 88, Sec.1, Hsin Tai Wu Rd., Hsichih,
Taipei Hsien 221, Taiwan, R.O.C.

Title: **Audio BEEP**

Size	Document Number	Rev
A4	Dasher-1	SD

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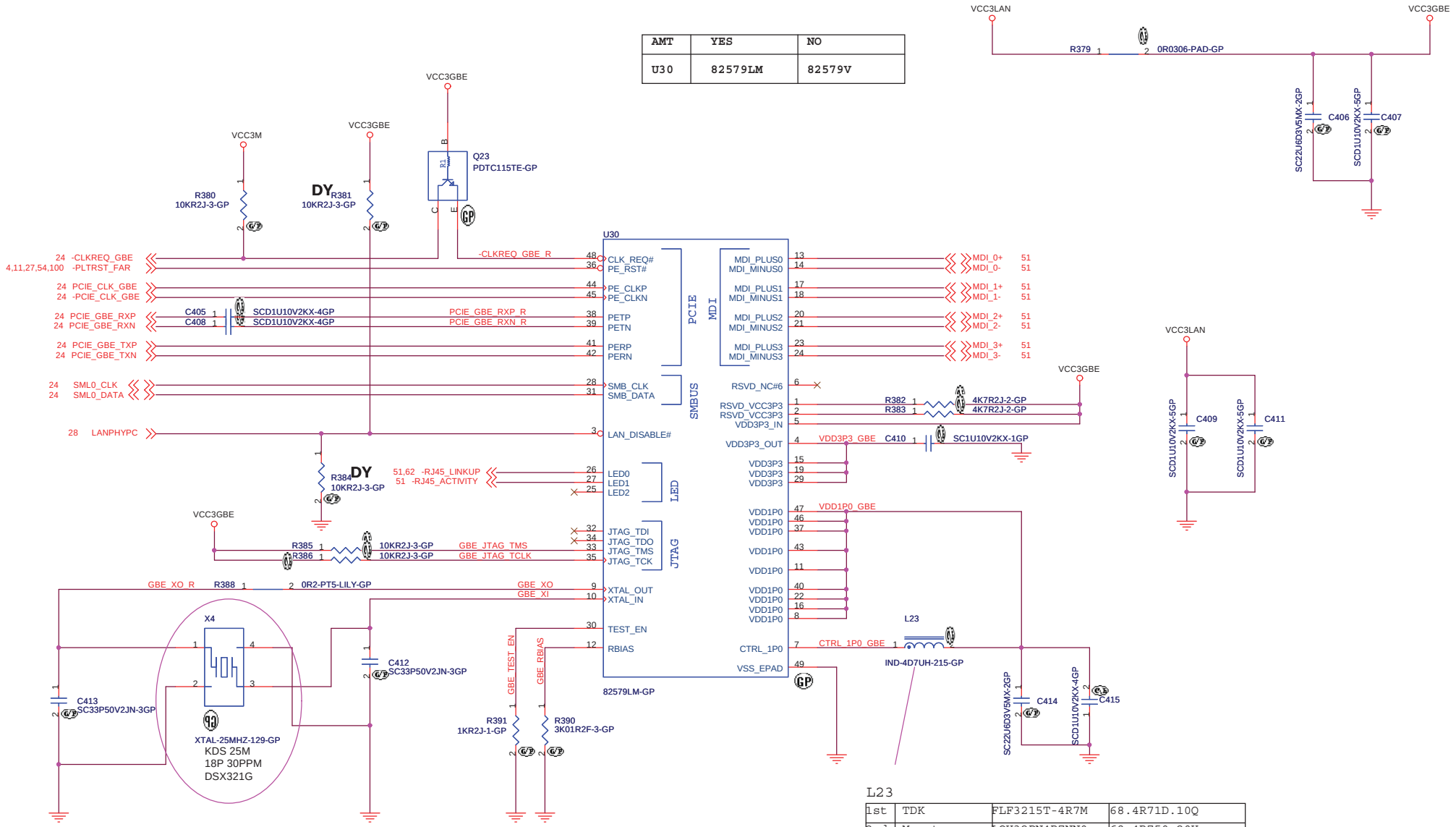
<Core Design>

緯創資通 Wistron Corporation
21F, 88, Sec.1, Hsin Tai Wu Rd., Hsichih,
Taipei Hsien 221, Taiwan, R.O.C.

Title: BLANK

Size	Document Number	Rev
A3	Dasher-1	SD

Date: Monday, January 10, 2011 Sheet 49 of 101



AMT	YES	NO
U30	82579LM	82579V

L23

1st	TDK	FLF3215T-4R7M	68.4R71D.10Q
2nd	Murata	LQH32PN4R7NN0	68.4R750.20H
3rd	Taiyo Yuden	BRL3225T4R7M	68.4R71E.10I

X4

1st	KDS	DSX321G 25M 18P 30PPM	82.30020.B11
2nd	H.ELE	HSX321S 25M 18P 30PPM	82.30020.B21
3rd	TXC	7V25020001 25M 18P 30PPM	41U6141AA

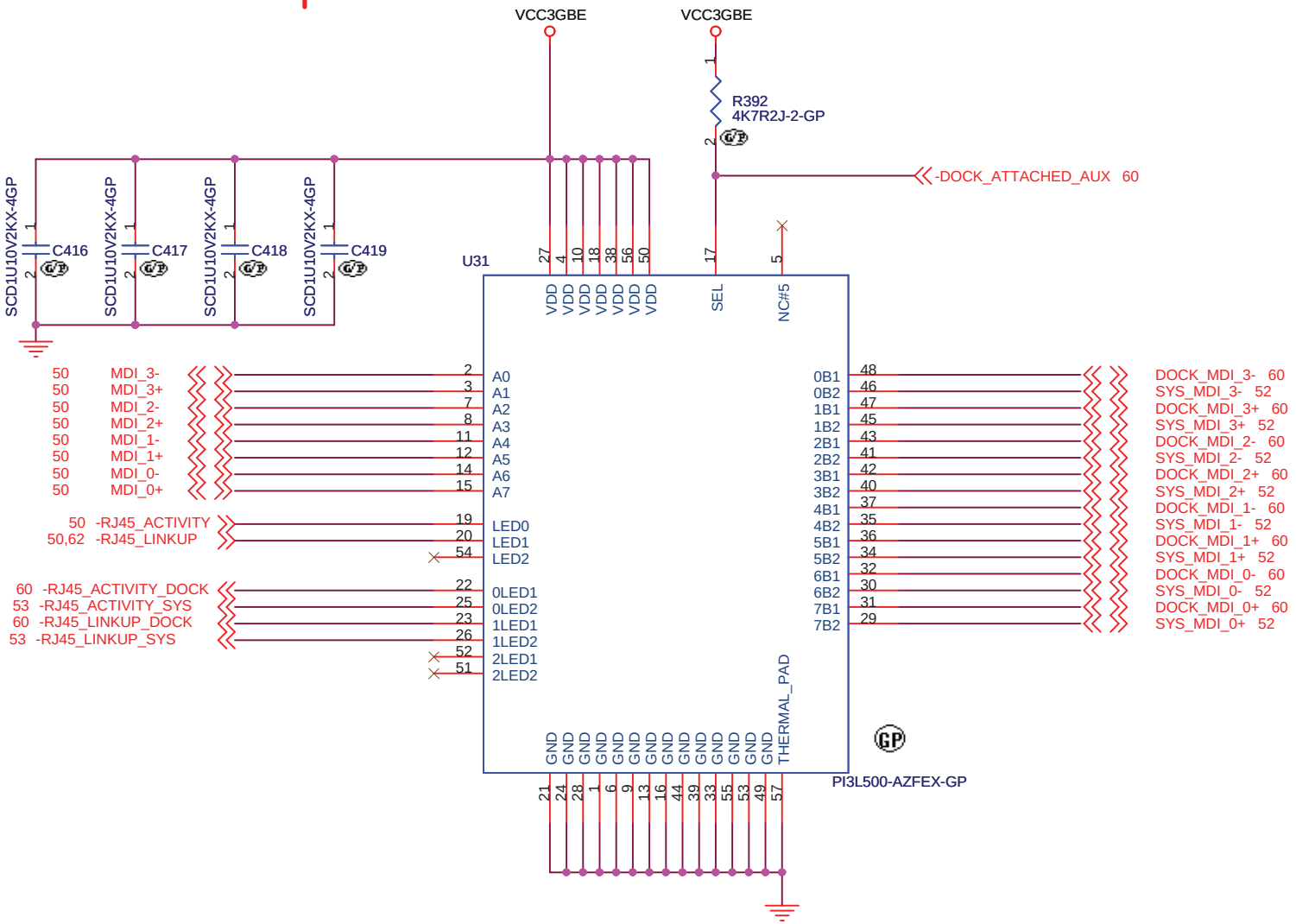
<Core Design>

緯創資通 Wistron Corporation
21F, 88, Sec.1, Hsin Tai Wu Rd., Hsichih,
Taipei Hsien 221, Taiwan, R.O.C.

Title: GBE Lewisville

Size: A3 | Document Number: Dasher-1 | Rev: SD

Date: Monday, January 10, 2011 | Sheet 50 of 101



		Vendor P/N	Wistron P/N
1st	Pericom	PI3L500AZFEX	73.3L500.003
2nd	TI	TS3L500AERHUR	73.3L500.A0V
3rd	OnSemi	NS3L500	73.03500.003

<Core Design>

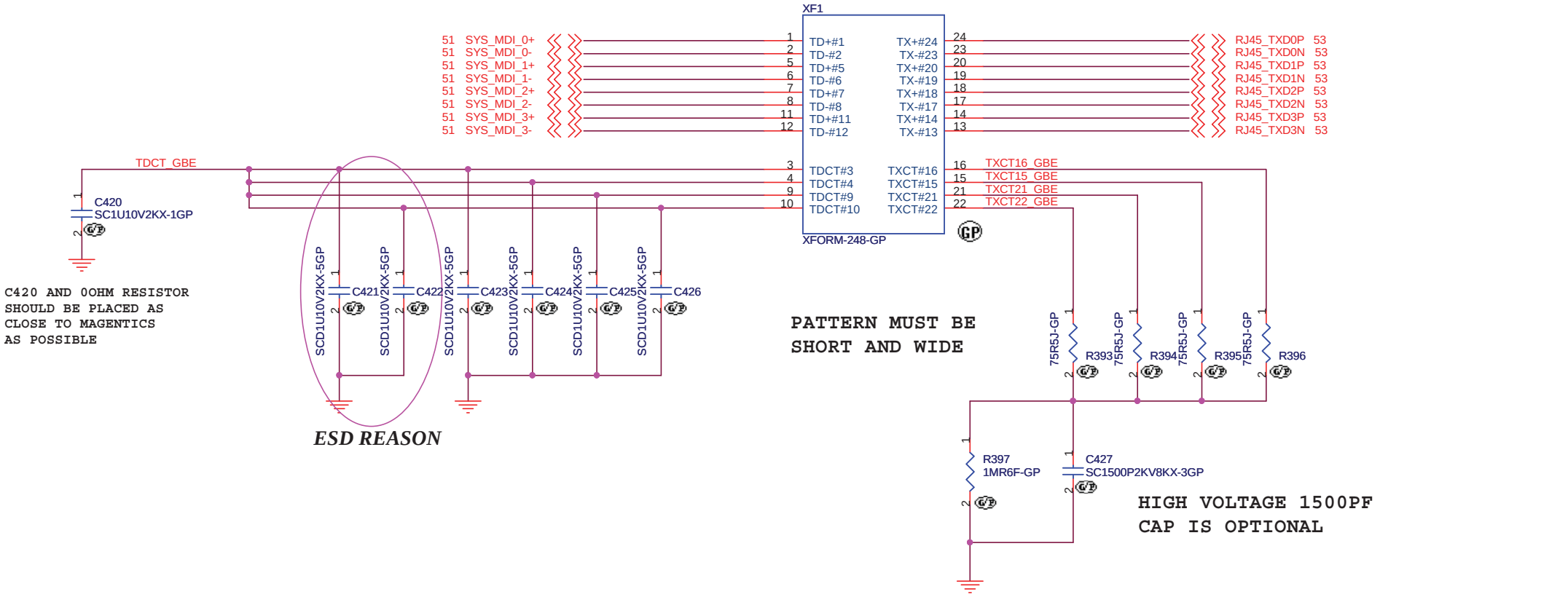
緯創資通

Wistron Corporation
21F, 88, Sec.1, Hsin Tai Wu Rd., Hsichih,
Taipei Hsien 221, Taiwan, R.O.C.

Title: ***GBE LAN Switch***

Size	Document Number	Rev
A4	Dasher-1	SD

Date: Monday, January 10, 2011 Sheet 51 of 101



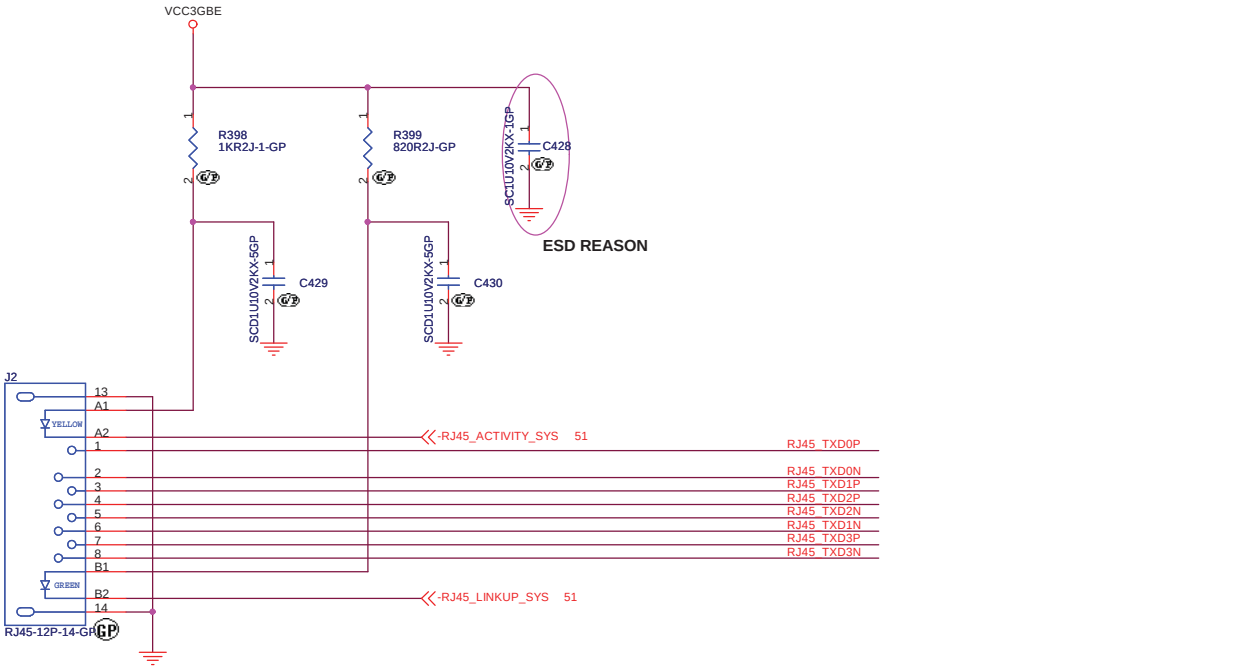
<Core Design>

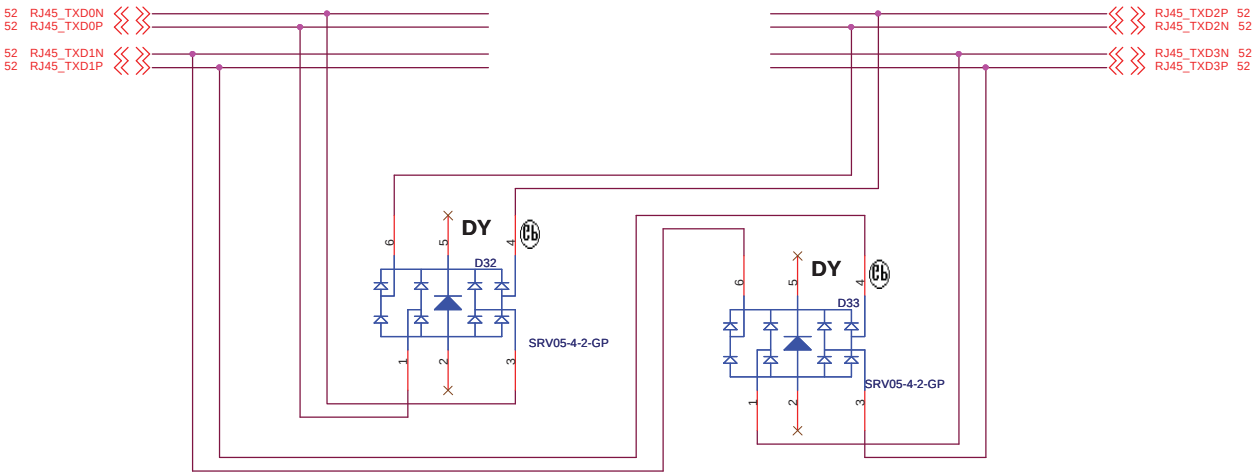
緯創資通 **Wistron Corporation**
21F, 88, Sec.1, Hsin Tai Wu Rd., Hsichih,
Taipei Hsien 221, Taiwan, R.O.C.

Title: **GBE MAGNETICS**

Size	Document Number	Rev
Custom	Dasher-1	SD

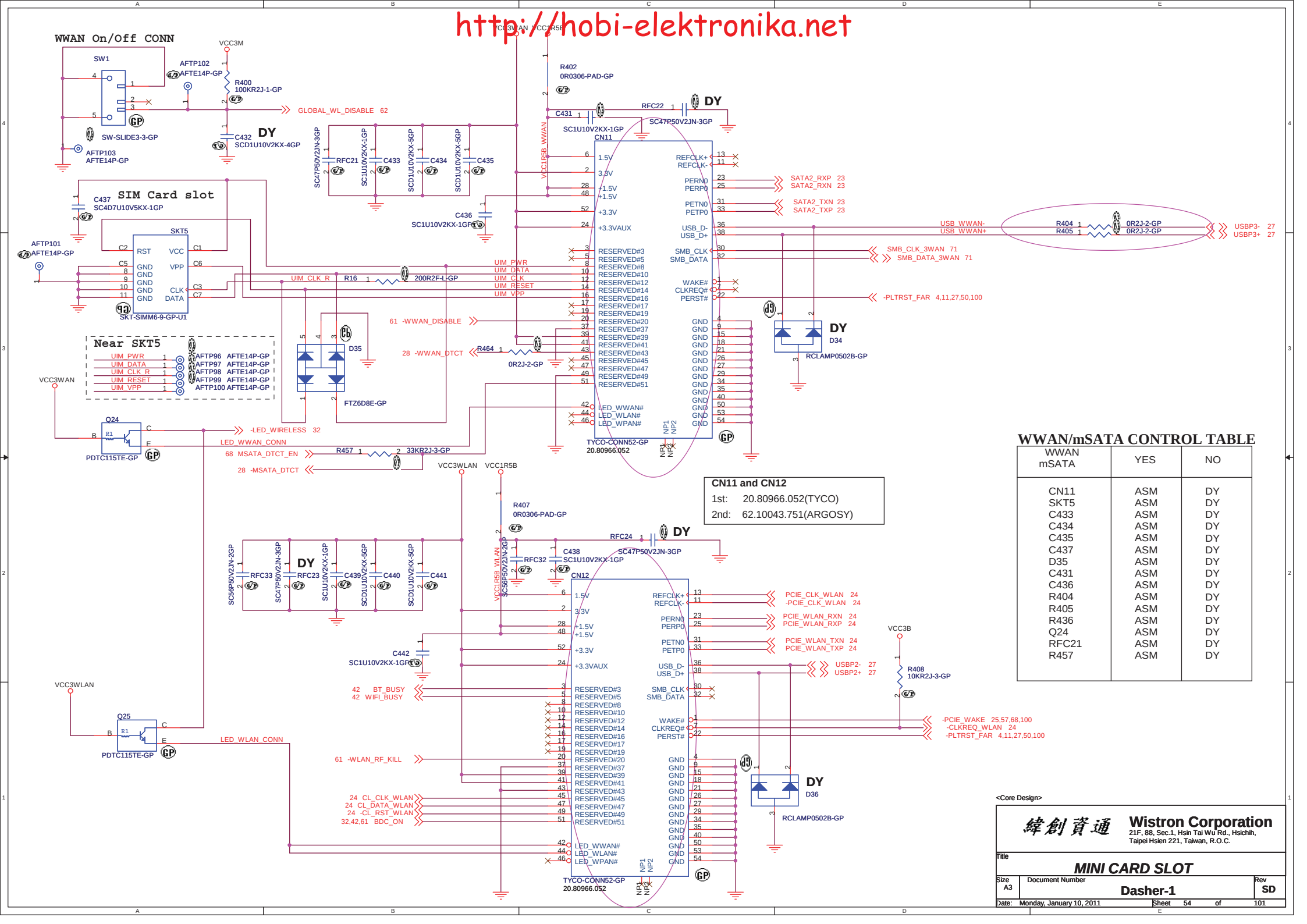
Date: Monday, January 10, 2011 Sheet 52 of 101





<Core Design>

緯創資通 Wistron Corporation 21F, 88, Sec.1, Hsin Tai Wu Rd., Hsichih, Taipei Hsien 221, Taiwan, R.O.C.		
Title: RJ45 CONNECTOR		
Size: A3	Document Number: Dasher-1	Rev: SD
Date: Monday, January 10, 2011	Sheet 53 of 101	



CN11 and CN12

1st:	20.80966.052(TYCO)
2nd:	62.10043.751(ARGOSY)

WWAN/mSATA CONTROL TABLE

WWAN mSATA	YES	NO
CN11	ASM	DY
SKT5	ASM	DY
C433	ASM	DY
C434	ASM	DY
C435	ASM	DY
C437	ASM	DY
D35	ASM	DY
C431	ASM	DY
C436	ASM	DY
R404	ASM	DY
R405	ASM	DY
R436	ASM	DY
Q24	ASM	DY
RFC21	ASM	DY
R457	ASM	DY

<Core Design>

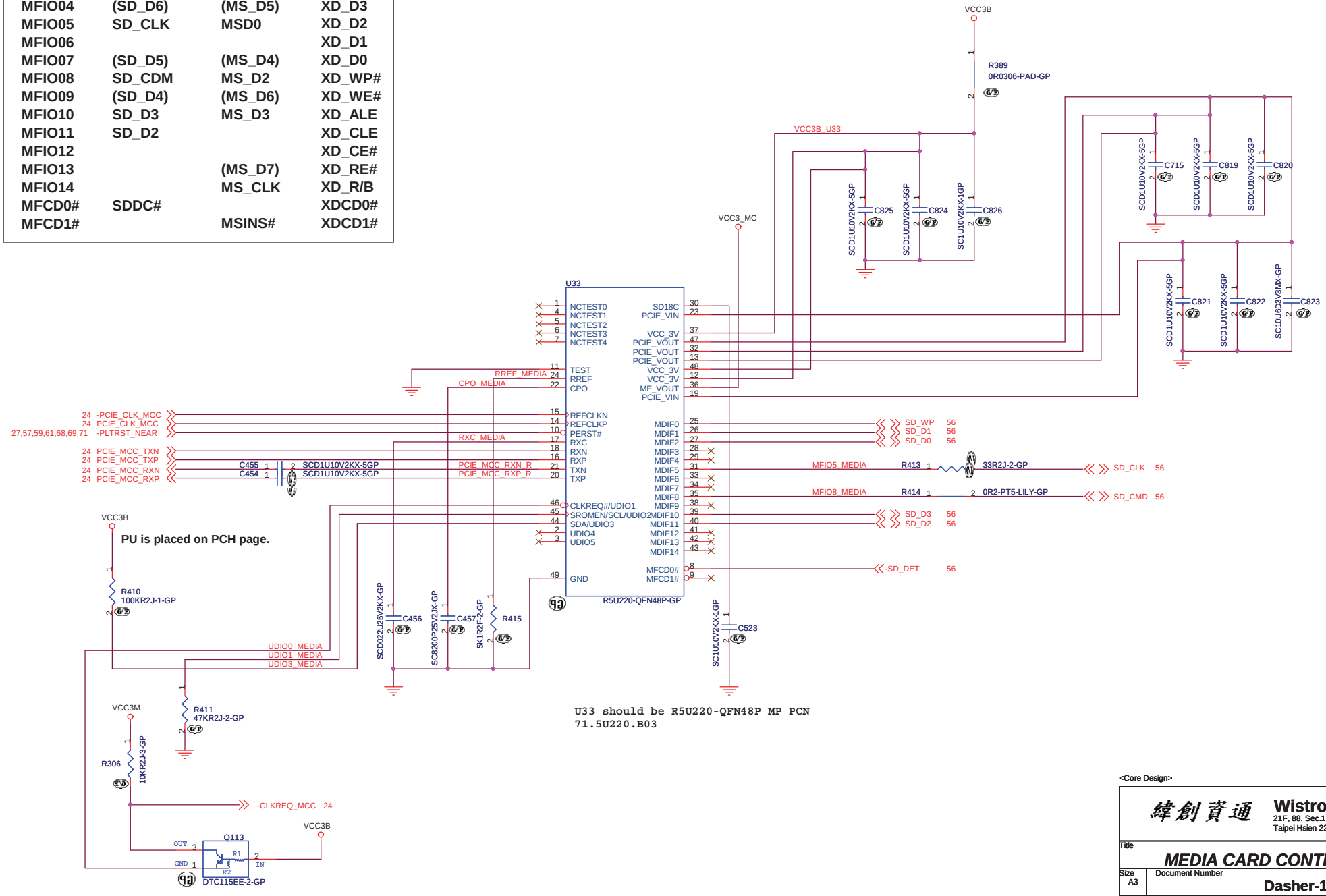
緯創資通 **Wistron Corporation**
21F, 88, Sec.1, Hsin Tai Wu Rd., Hsichih,
Taipei Hsien 221, Taiwan, R.O.C.

Title: **MINI CARD SLOT**

Size	Document Number	Rev
A3	Dasher-1	SD

Date: Monday, January 10, 2011 Sheet 54 of 101

MEDIA I/F	SD/MMC	MEMORYSTICK	XD
MFIO00	SDWP#	MSBS	XD_D7
MFIO01	SD_D1		XD_D6
MFIO02	SD_D0	MS_D1	XD_D5
MFIO03	(SD_D7)		XD_D4
MFIO04	(SD_D6)	(MS_D5)	XD_D3
MFIO05	SD_CLK	MSD0	XD_D2
MFIO06			XD_D1
MFIO07	(SD_D5)	(MS_D4)	XD_D0
MFIO08	SD_CDM	MS_D2	XD_WP#
MFIO09	(SD_D4)	(MS_D6)	XD_WE#
MFIO10	SD_D3	MS_D3	XD_ALE
MFIO11	SD_D2		XD_CLE
MFIO12			XD_CE#
MFIO13		(MS_D7)	XD_RE#
MFIO14		MS_CLK	XD_R/B
MFCD0#	SDDC#		XDCD0#
MFCD1#		MSINS#	XDCD1#



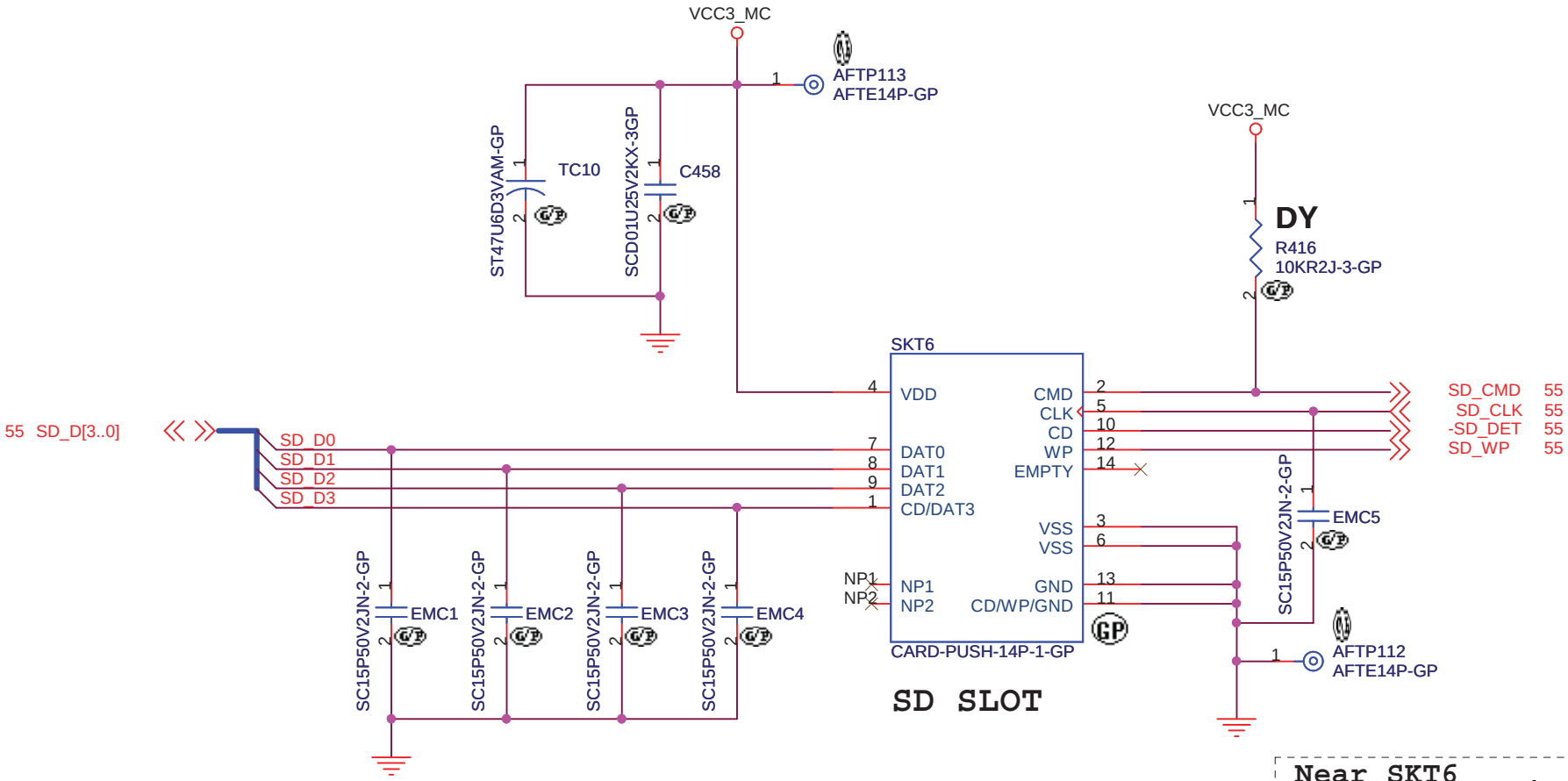
<Core Design>

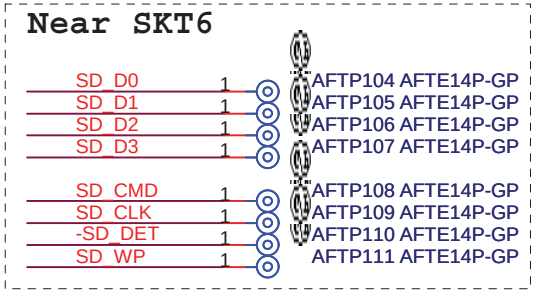
Wistron Corporation
21F, 88, Sec.1, Hsin Tai Wu Rd., Hsichih,
Taipei Hsien 221, Taiwan, R.O.C.

Title: MEDIA CARD CONTROLLER

Size	Document Number	Rev
A3	Dasher-1	SD

Date: Monday, January 10, 2011 Sheet 55 of 101





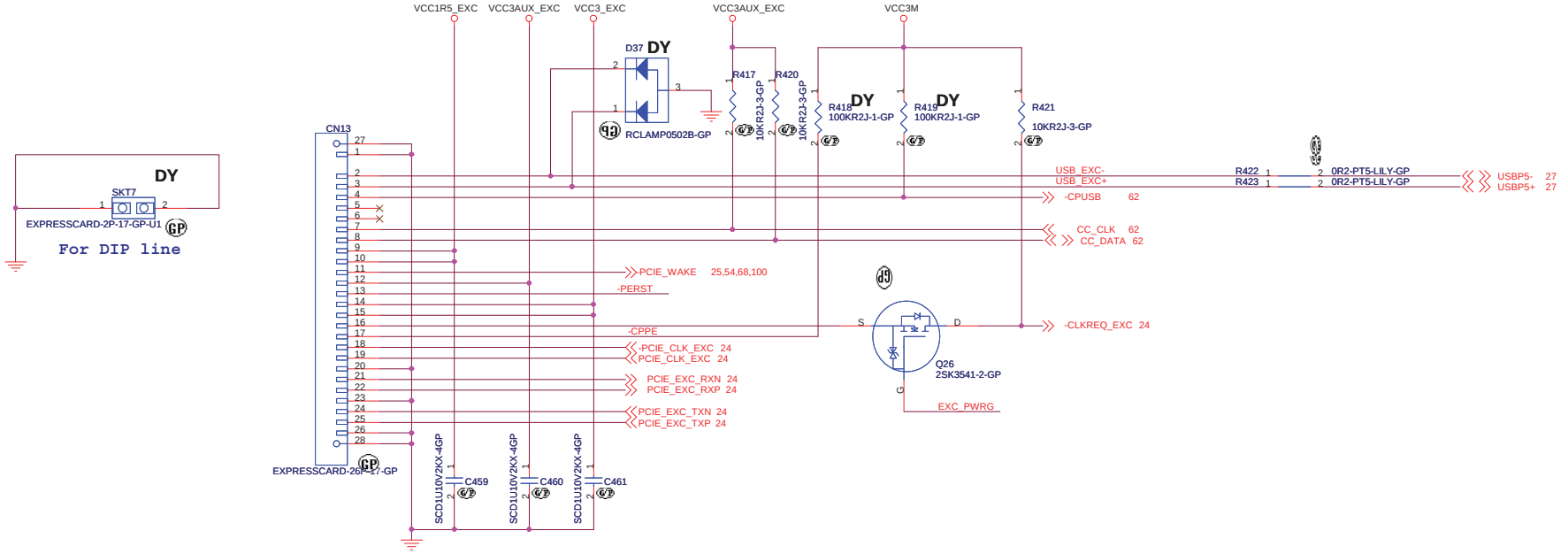
<Core Design>

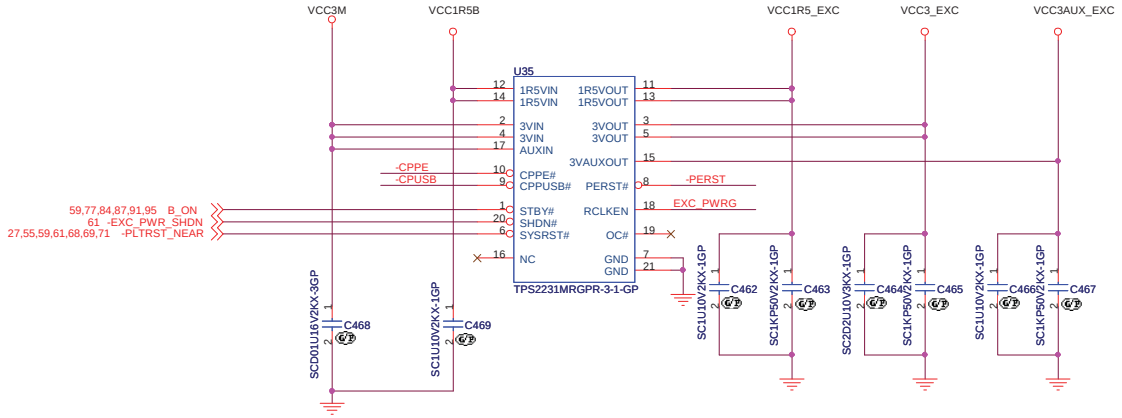
緯創資通 **Wistron Corporation**
21F, 88, Sec.1, Hsin Tai Wu Rd., Hsichih,
Taipei Hsien 221, Taiwan, R.O.C.

Title: ***Media Card Slot***

Size	Document Number	Rev
A	Dasher-1	SD

Date: Monday, January 10, 2011 Sheet 56 of 101





U35			
	TI	TPS2231MRGP-3	45K0234BA
	Rohm	BD4156MUV-E2	74.04156.07T
	Rohm	BD4157MUV-E2	74.04157.073

<Core Design>

Wistron Corporation
21F, 88, Sec.1, Hsin Tai Wu Rd., Hsichih,
Taipei Hsien 221, Taiwan, R.O.C.

Title: Express Card Connector

Size	Document Number	Rev
Custom	Dasher-1	SD

Date: Monday, January 10, 2011 Sheet 57 of 101

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<Core Design>

緯創資通 Wistron Corporation
21F, 88, Sec.1, Hsin Tai Wu Rd., Hsichih,
Taipei Hsien 221, Taiwan, R.O.C.

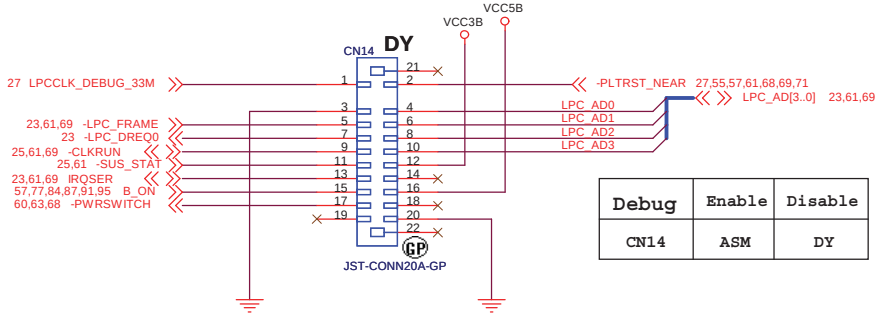
Title: ***BLANK***

Size	Document Number	Rev
A	Dasher-1	SD

Date: Monday, January 10, 2011 Sheet 58 of 101

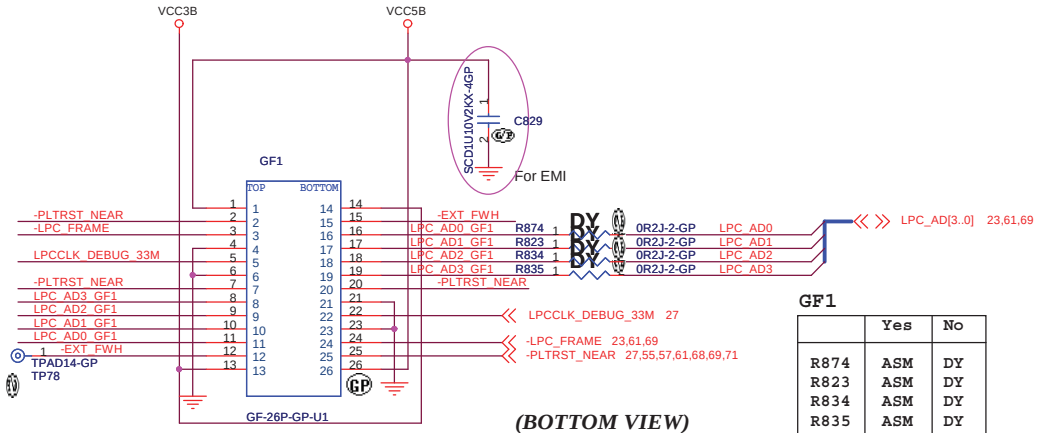
Golden Finger for Debug Board

Debug card connector



Debug	Enable	Disable
CN14	ASM	DY

Put "easy-to -access" place



GF1

	Yes	No
R874	ASM	DY
R823	ASM	DY
R834	ASM	DY
R835	ASM	DY
R235	ASM	DY

SVT Logic

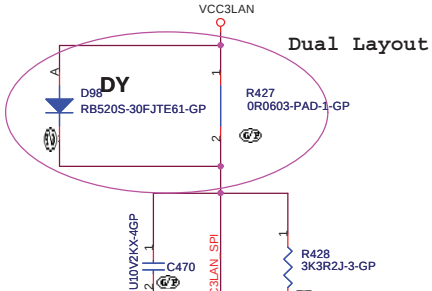
(BOTTOM VIEW)
TOP VIEW

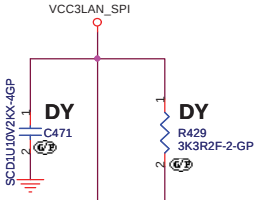
(26) (25)····(15) (14)

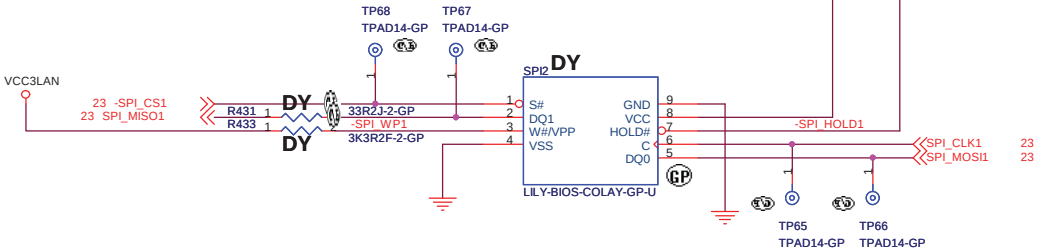
13 12 ···· 2 1

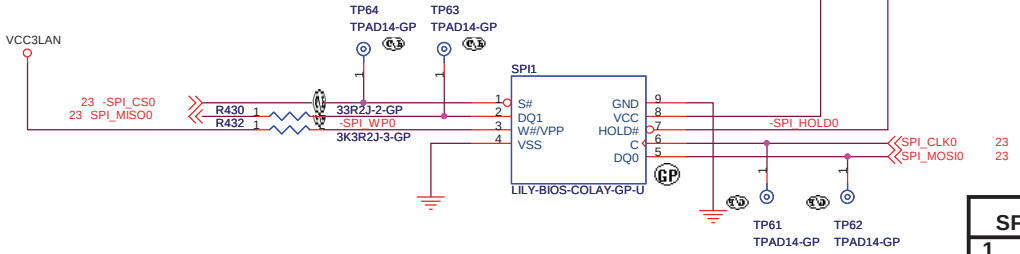
64Mbit SPI FLASH (for vPRO model)		
SO8		
Marcronix	MX25L6436EM2I-10G	72.25643.001
Marcronix	MX25L6406EM2I-10G	
Winbond	W25Q64CVSSIG	72.25Q64.B01
Atmel	AT25DF641 or 641A	72.25641.003
MLP8		
Numonyx	M25PX64-VMD6TG	72.25P64.E01

Part Number wait confirm









SO8 and WSON8 are both supported!

SF 100 PIN HEADER INTERFACE (Top View)					
1	VCC	R427.2	GND	GND	2
3	CS#	R148.1	R145.1	CLK	4
5	MISO	R430.2	R151.1	MOSI	6
7	(KEY)	N/A	N/A	(RESET)	8

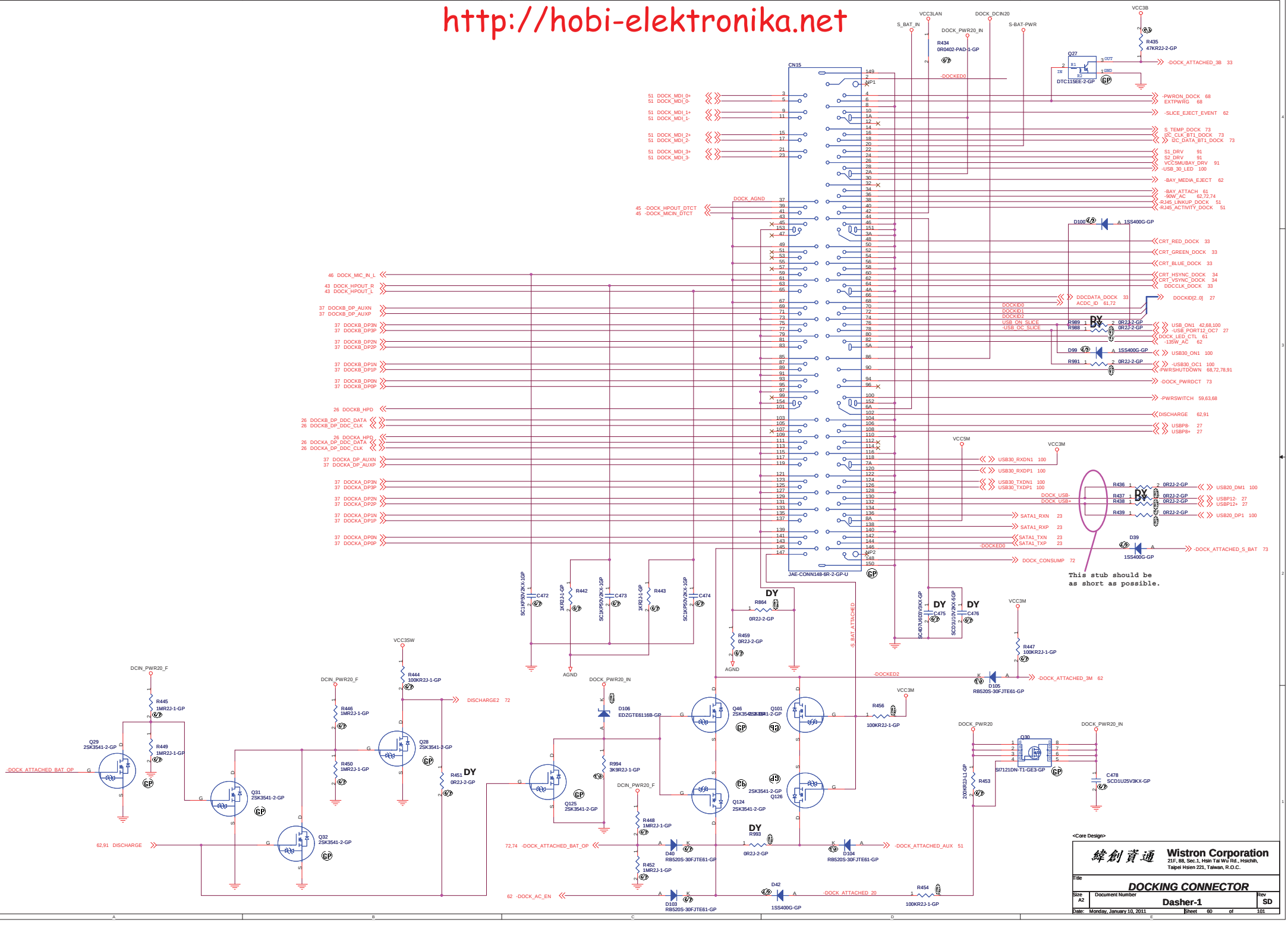
<Core Design>

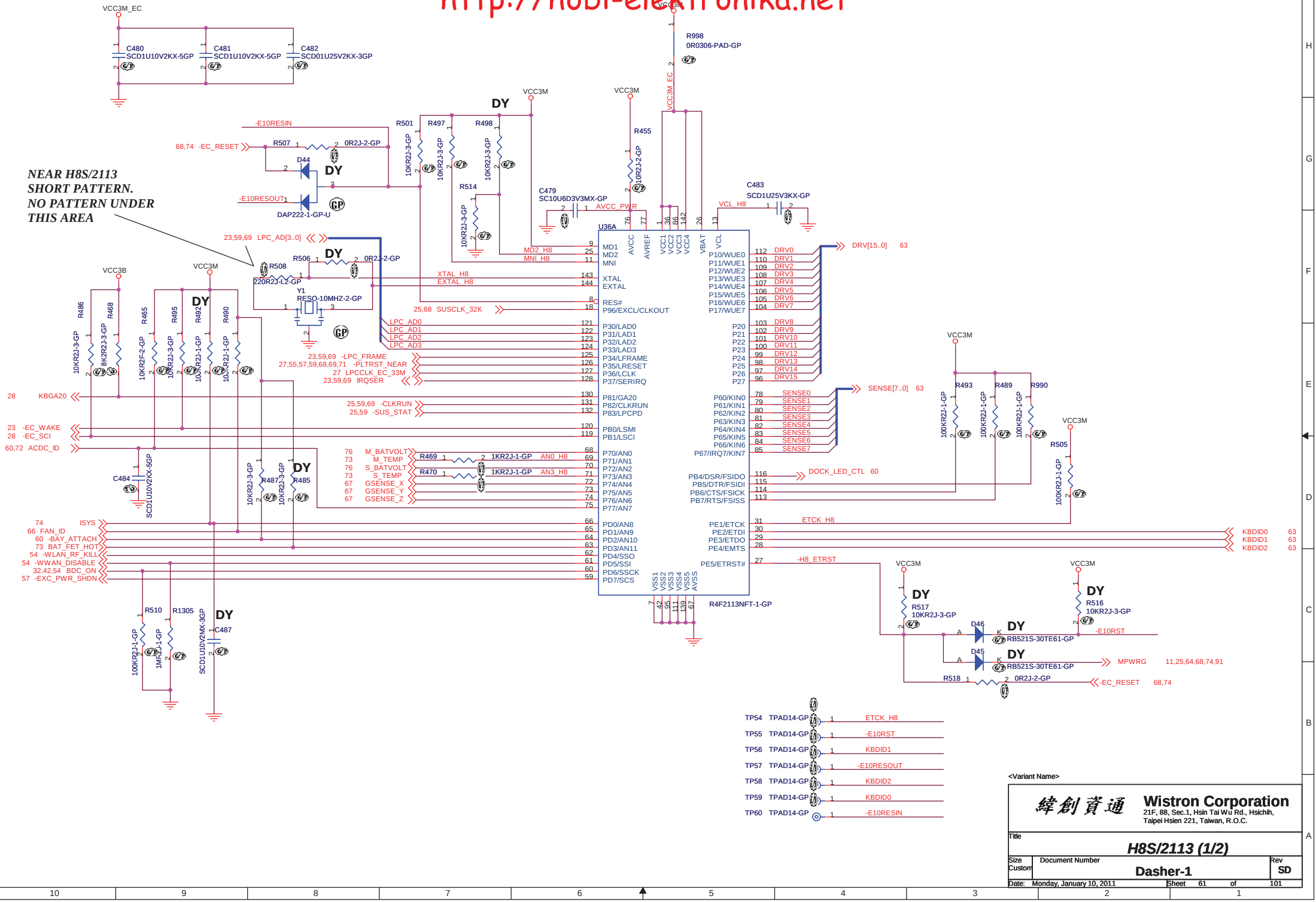
緯創資通 **Wistron Corporation**
21F, 88, Sec.1, Hsin Tai Wu Rd., Hsichih,
Taipei Hsien 221, Taiwan, R.O.C.

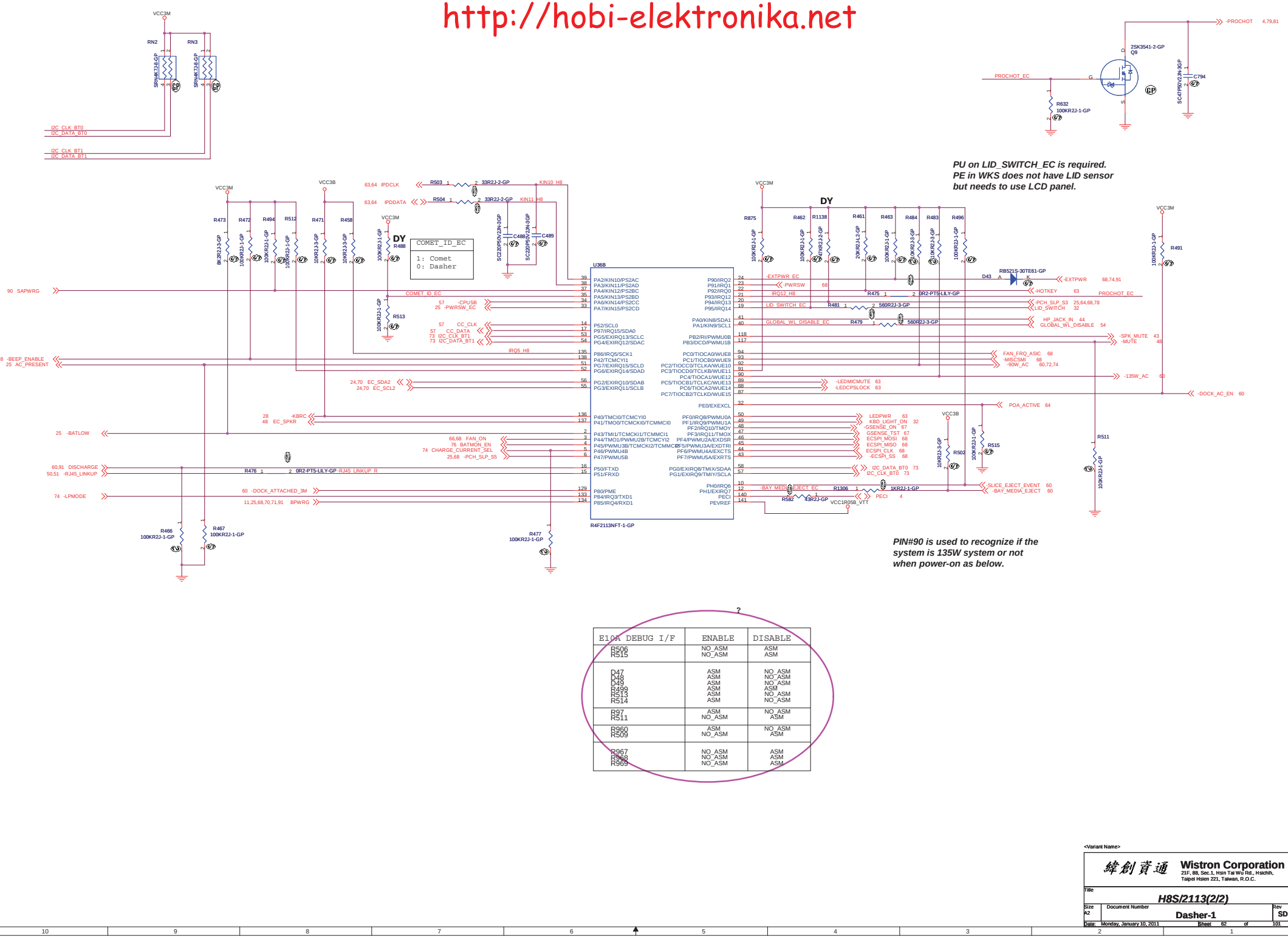
Title: ***SPI&LPC debug card***

Size: A3 | Document Number: **Dasher-1** | Rev: SD

Date: Monday, January 10, 2011 | Sheet 59 of 101







E10A DEBUG I/F	ENABLE	DISABLE
R506 R515	NO_ASM NO_ASM	ASM ASM
D47 D48 D49 R499 R513 R514	ASM ASM ASM ASM ASM ASM	NO_ASM NO_ASM NO_ASM ASM NO_ASM NO_ASM
R97 R511	ASM NO_ASM	NO_ASM ASM
R960 R509	ASM NO_ASM	NO_ASM ASM
R967 R968 R969	NO_ASM NO_ASM NO_ASM	ASM ASM ASM

<Variant Name>

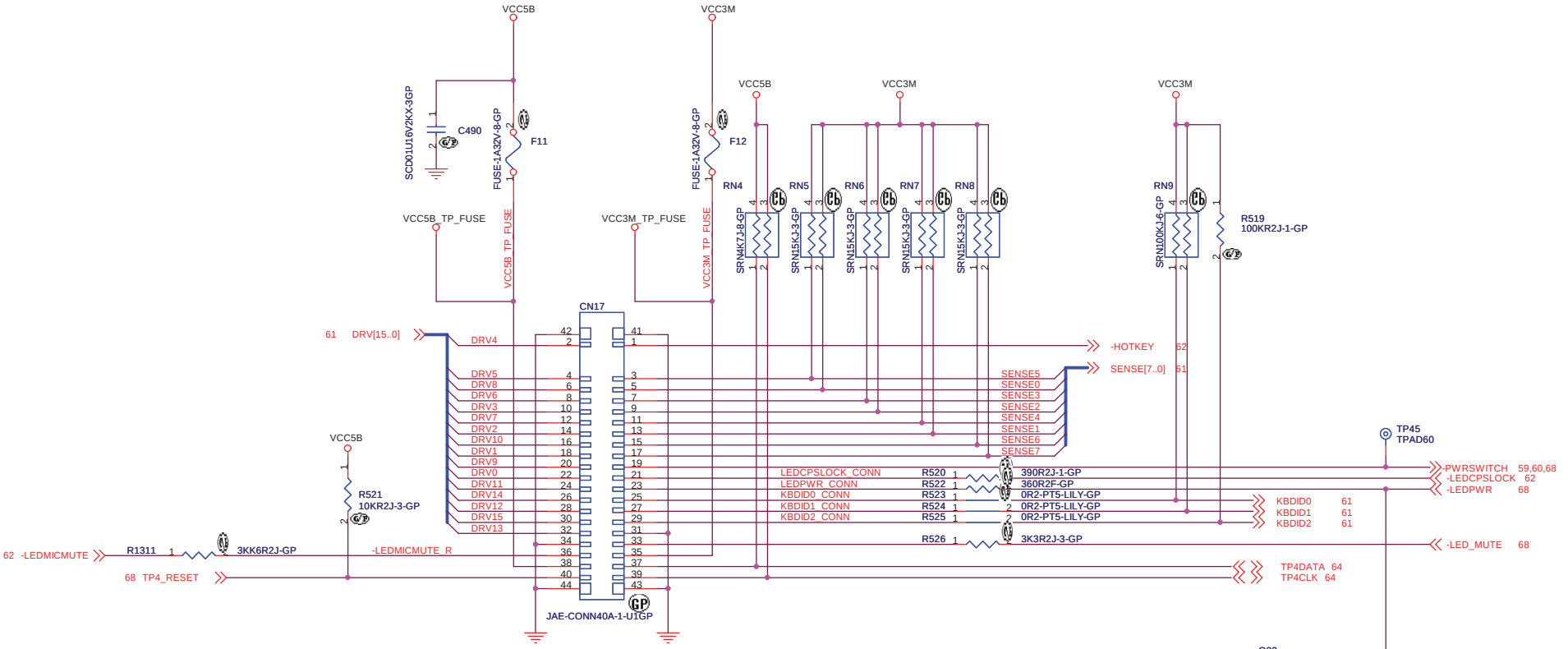
Wistron Corporation
21F, 88, Sec.1, Hsin Tai Wu Rd., Hsichih,
Taipei Hsien 221, Taiwan, R.O.C.

Title: H8S/2113(2/2)

Size: A2 | Document Number: Dasher-1 | Rev: SD

Date: Monday, January 10, 2011 | Sheet 62 of 101

Keyboard Connector

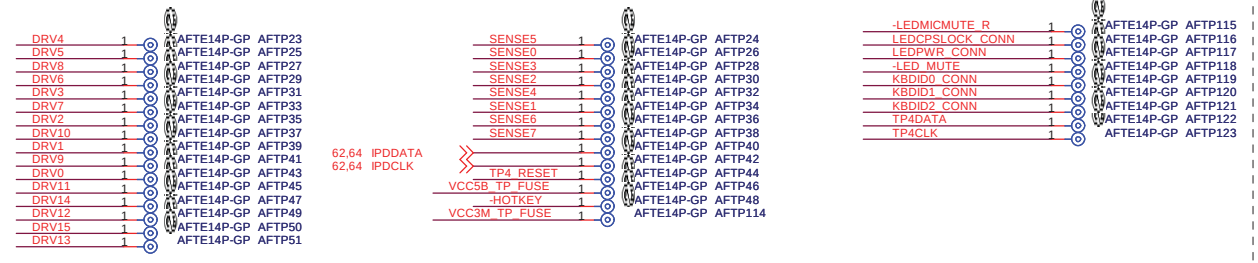


HOTKEY# IPDCLK

DRV4 to R521

Keyboard Connector Top View

Near CN17



<Core Design>

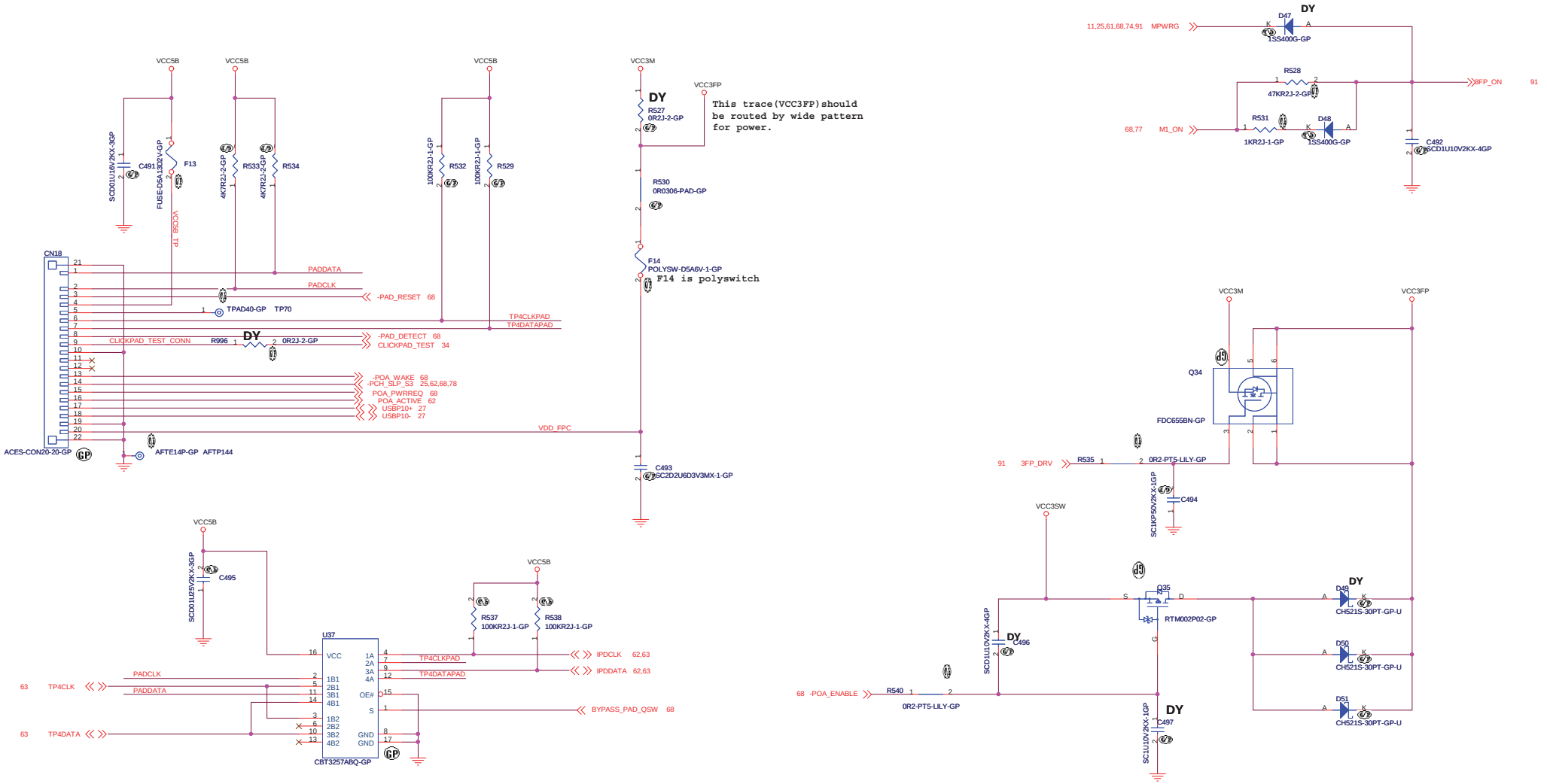
Wistron Corporation
21F, 88, Sec.1, Hsin Tai Wu Rd., Hsichih,
Taipei Hsien 221, Taiwan, R.O.C.

Title: KEYBOARD CONNECTOR

Size	Document Number	Rev
A3	Dasher-1	SD

Date: Monday, January 10, 2011 Sheet 63 of 101

Fingerprint Reader / Touch PAD



<Core Design>

Wistron Corporation
21F, 88, Sec.1, Hsin Tai Wu Rd., Hsichih,
Taipei Hsien 221, Taiwan, R.O.C.

Title: TOUCH PAD CONNECTOR

Size	Document Number	Rev
Custom	Dasher-1	SD

Date: Monday, January 10, 2011 Sheet 64 of 101

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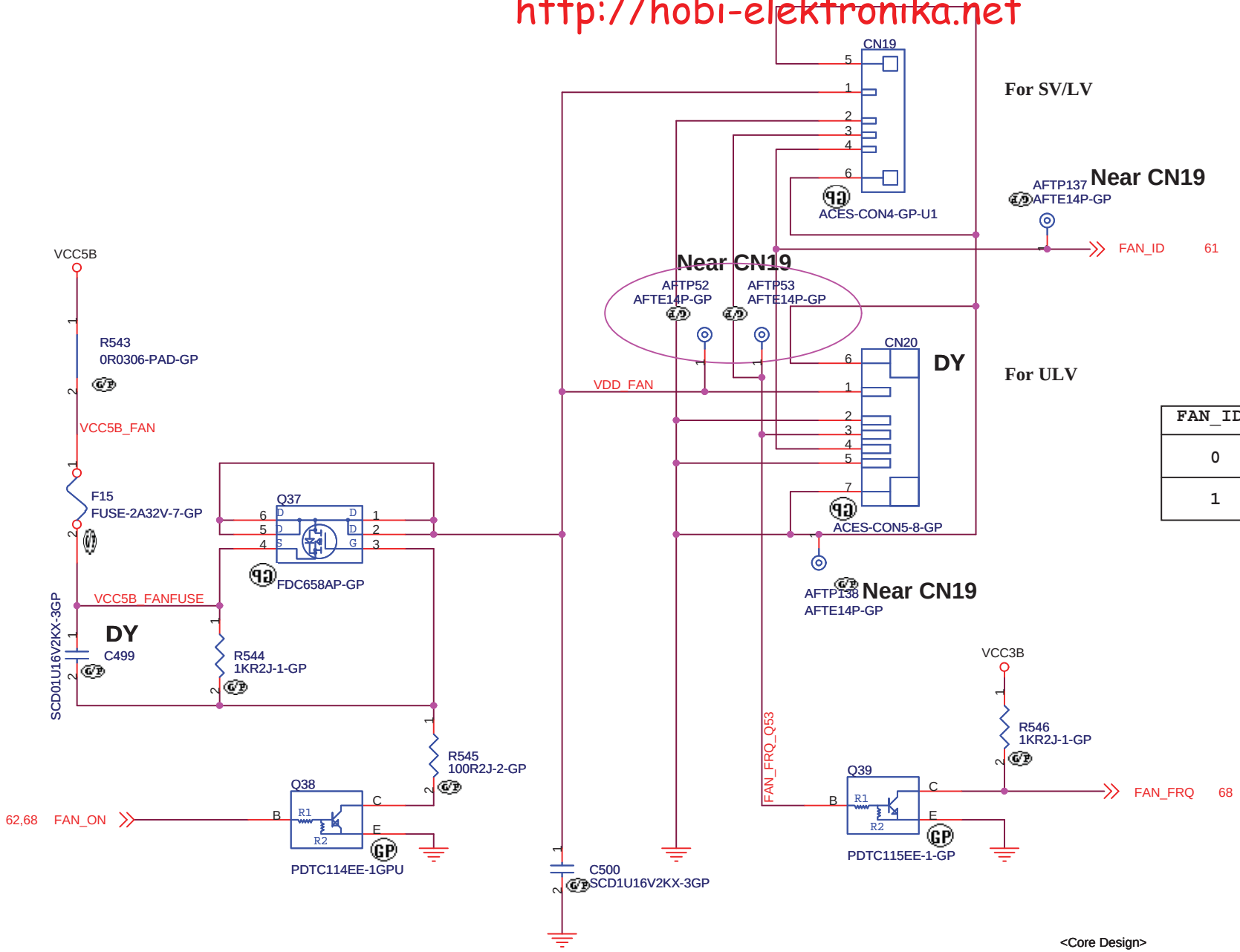
<Core Design>

緯創資通 Wistron Corporation
21F, 88, Sec.1, Hsin Tai Wu Rd., Hsichih,
Taipei Hsien 221, Taiwan, R.O.C.

Title	***BLANK***	
Size: A	Document Number: **Dasher-1**	Rev: **SD**
Date: Monday, January 10, 2011	Sheet 65 of 101	



FAN_ID	Thermal module
0	THT
1	AVC or DELTA

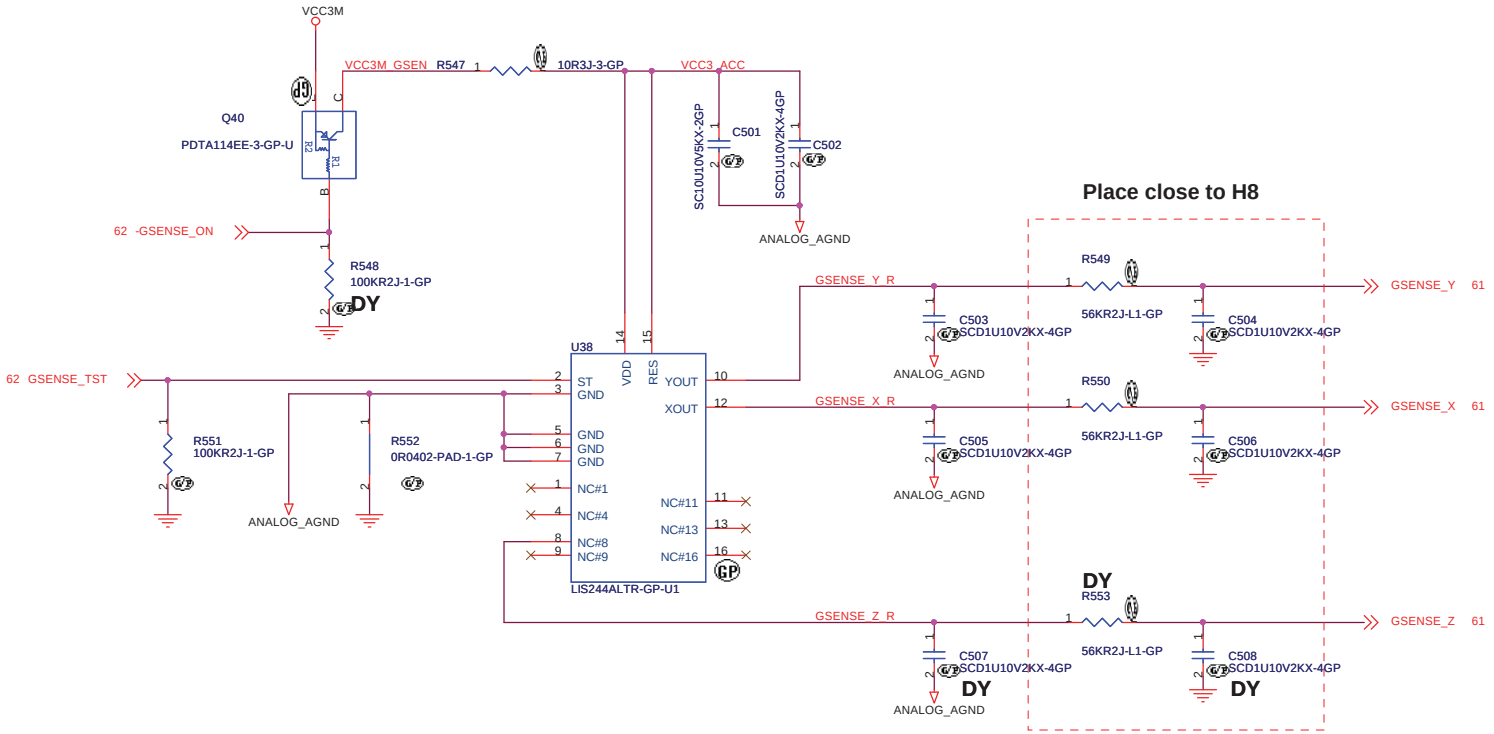
<Core Design>

緯創資通 **Wistron Corporation**
21F, 88, Sec.1, Hsin Tai Wu Rd., Hsichih,
Taipei Hsien 221, Taiwan, R.O.C.

Title: ***FAN Control***

Size	Document Number	Rev
A4	Dasher-1	SD

Date: Monday, January 10, 2011 Sheet 66 of 101



Width = 6 mil & Spacing = 10 mil
for three Output traces

	LIS244AL LIS34AL	No Accel
R548	DY	ASM
R551	ASM	ASM
U38	ASM	DY
Q40	ASM	DY
R547	ASM	DY
C501	ASM	DY
C502	ASM	DY
R552	ASM	DY
C503	ASM	DY
R549	ASM	DY
C504	ASM	DY
C505	ASM	DY
R550	ASM	DY
C506	ASM	DY
C507 R553 C508	DY	DY

U38

Primary	STMicro LIS244AL	74.00244.0BZ
Second	STMicro LIS34AL	74.00034.0BZ
Third	Kionix KXTC8-2850	74.KXTC8.0BZ

Layout Comment :

(1) Place C475,C476,Q64,R572,R580 ?
C464,C472,R564,R569 close to U26

(2) Avoid routing under DCDC switching area.

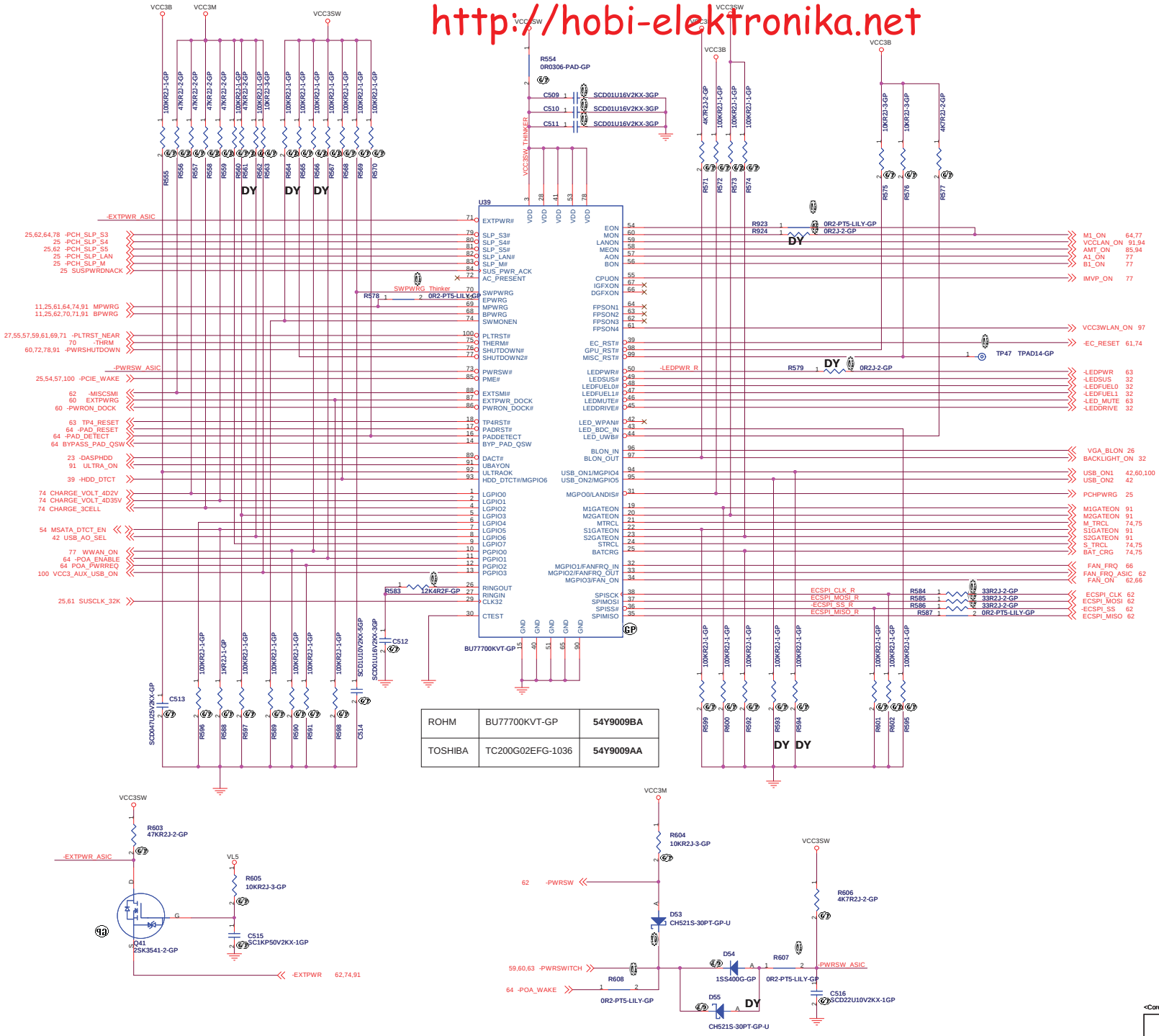
<Core Design>

緯創資通 Wistron Corporation
21F, 88, Sec.1, Hsin Tai Wu Rd., Hsichih,
Taipei Hsien 221, Taiwan, R.O.C.

Title: G-SENSOR

Size: A3 | Document Number: Dasher-1 | Rev: SD

Date: Monday, January 10, 2011 | Sheet 67 of 101



ROHM	BU77700KVT-GP	54Y9009BA
TOSHIBA	TC200G02EFG-1036	54Y9009AA

<Core Design>

緯創資通 Wistron Corporation
21F, 88, Sec.1, Hsin Tai Wu Rd., Hsichih,
Taipei Hsien 221, Taiwan, R.O.C.

Title: Thinker-1

Size	Document Number	Rev
Custom	Dasher-1	SD

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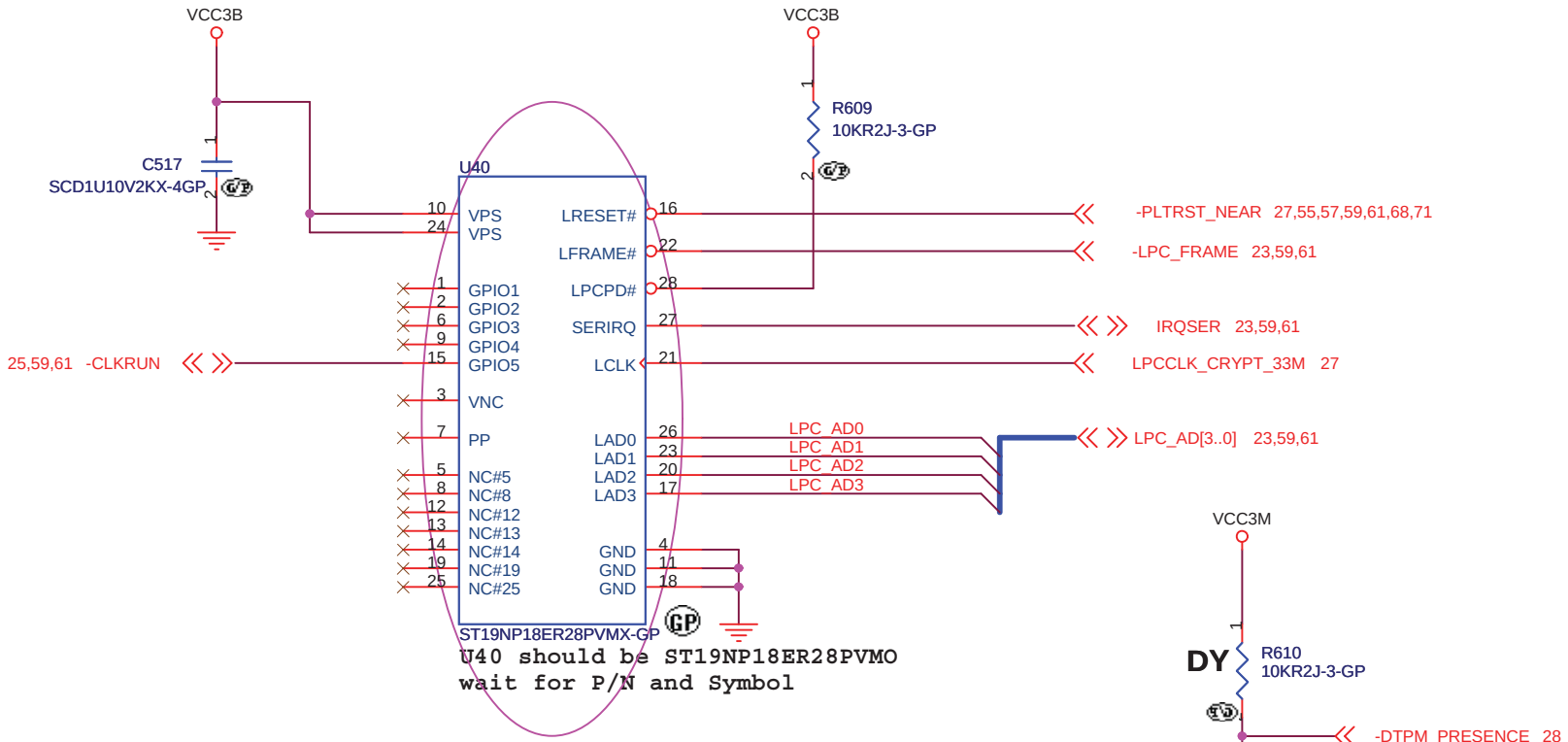

	NO TPM	ST Micro ST19NP18ER28PVMO
U40	DY	ASM
C517	DY	ASM
R609	DY	ASM
R610	ASM	DY
R611	DY	ASM

<Core Design>

緯創資通 **Wistron Corporation**
21F, 88, Sec.1, Hsin Tai Wu Rd., Hsichih,
Taipei Hsien 221, Taiwan, R.O.C.

Title: **TPM**

Size	Document Number	Rev
A4	Dasher-1	SD

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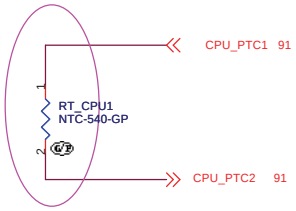
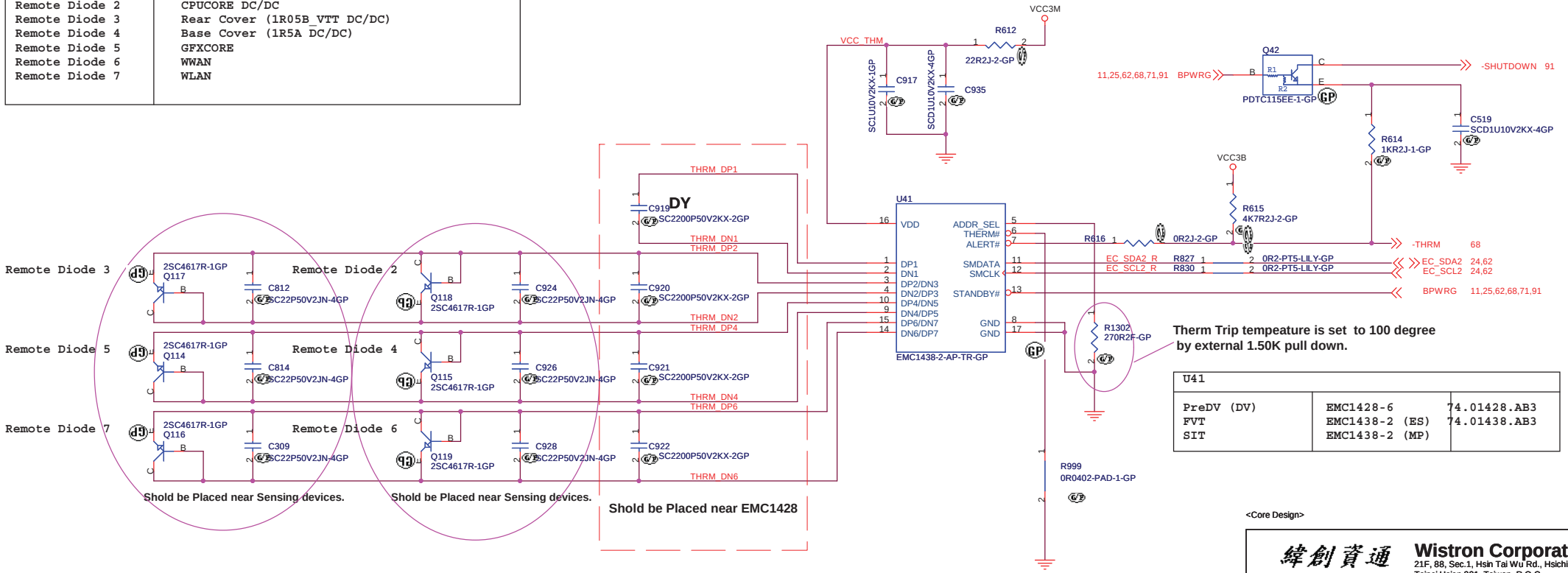


It should be arranged near CPU instead of CPU thermal sensor

Channel	Location
	MEMORY
Local	
Remote Diode 2	CPUCORE DC/DC
Remote Diode 3	Rear Cover (1R05B_VTT DC/DC)
Remote Diode 4	Base Cover (1R5A DC/DC)
Remote Diode 5	GFXCORE
Remote Diode 6	WWAN
Remote Diode 7	WLAN



Therm Trip tempeature is set to 100 degree by external 1.50K pull down.

U41		
PreDV (DV)	EMC1428-6	74.01428.AB3
FVT	EMC1438-2 (ES)	74.01438.AB3
SIT	EMC1438-2 (MP)	

<Core Design>

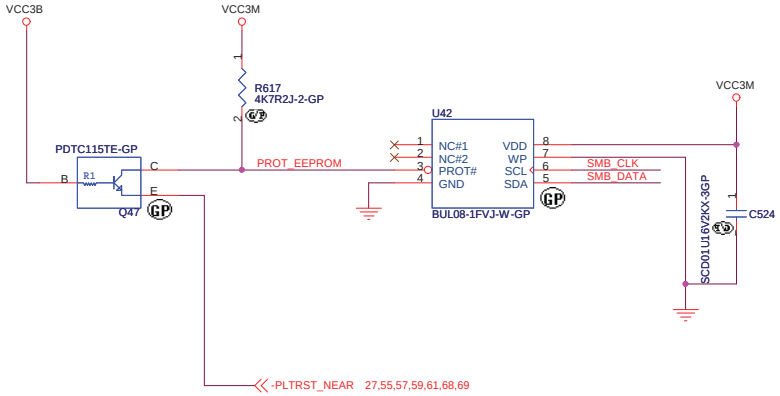
緯創資通 **Wistron Corporation**
21F, 88, Sec.1, Hsin Tai Wu Rd., Hsichih,
Taipei Hsien 221, Taiwan, R.O.C.

Title: ***Thermel Sensor***

Size	Document Number	Rev
A3	Dasher-1	SD

Date: Monday, January 10, 2011 Sheet 70 of 101

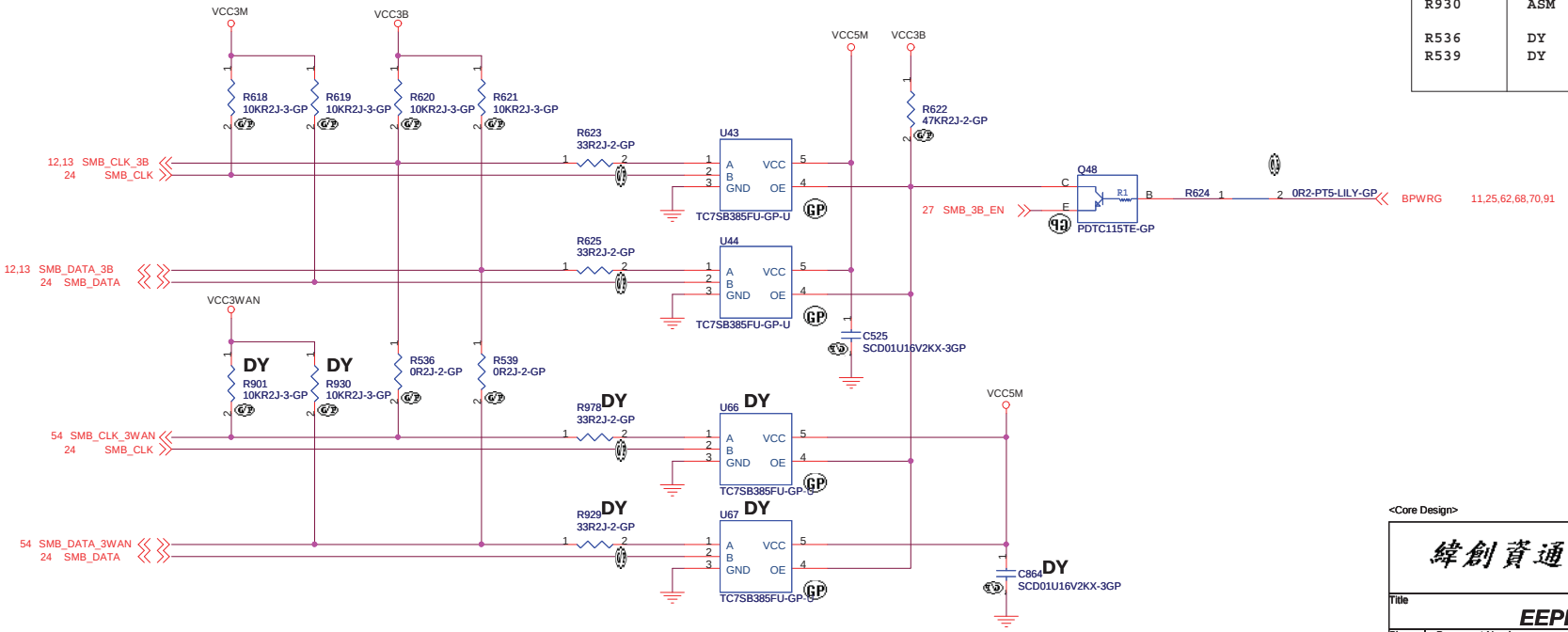
EEPROM



	Vendor	U42	Part Number
1st	ROHM	BUL08-1FVJ-W	72.BUL08.00Q
2nd	PHILIPS	PCA24S08ADP	72.24S08.A0Q
3rd	Sanyo	LE26CAP08TT	72.26C08.00R

CONSTANT SECURE	YES	NO
U66	ASM	DY
U67	ASM	DY
C864	ASM	DY
R978	ASM	DY
R929	ASM	DY
R901	ASM	DY
R930	ASM	DY
R536	DY	ASM
R539	DY	ASM

Logic



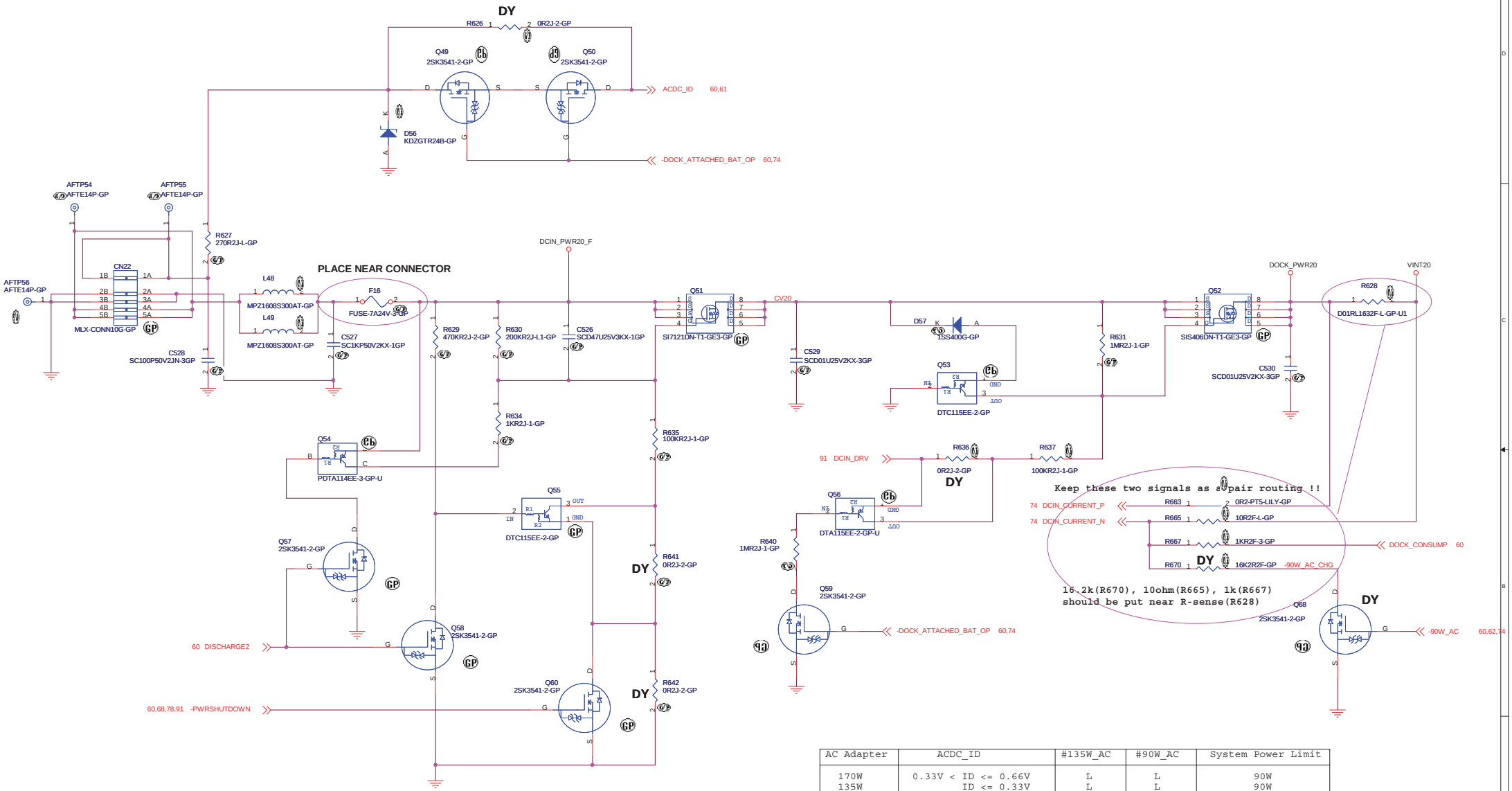
<Core Design>

緯創資通 Wistron Corporation
21F, 88, Sec.1, Hsin Tai Wu Rd., Hsichih,
Taipei Hsien 221, Taiwan, R.O.C.

Title: EEPROM/SMBUS SW

Size: Custom | Document Number: Dasher-1 | Rev: SD

Date: Monday, January 10, 2011 | Sheet 71 of 101



AC Adapter	ACDC_ID	#135W_AC	#90W_AC	System Power Limit
170W	0.33V < ID <= 0.66V	L	L	90W
135W	ID <= 0.33V	L	L	90W
90W	2.64V < ID	H	L	90W
65W	1.32V < ID <= 1.98V	H	H	65W

PEAK SHIFT	YES	NO
R641	NO-ASM	ASM
R629	ASM	NO-ASM
Q58	ASM	NO-ASM
Q55	ASM	NO-ASM

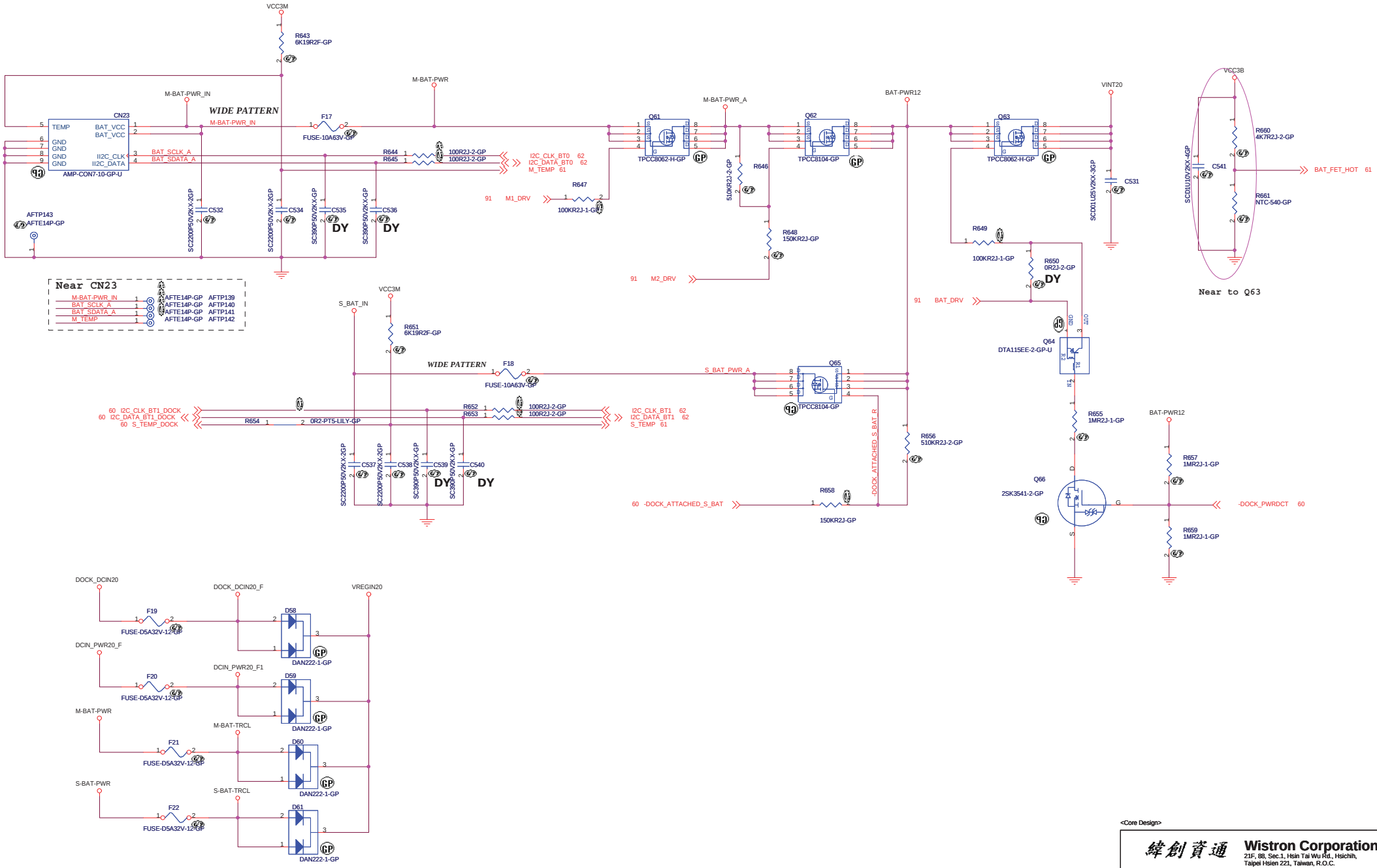
<Core Design>

緯創資通 Wistron Corporation
21F, 88, Sec.1, Hsin Tai Wu Rd., Hsichih,
Taipei Hsien 221, Taiwan, R.O.C.

Title: DC-IN

Size: Custom | Document Number: Dasher-1 | Rev: SD

Date: Monday, January 10, 2011 | Sheet 72 of 101



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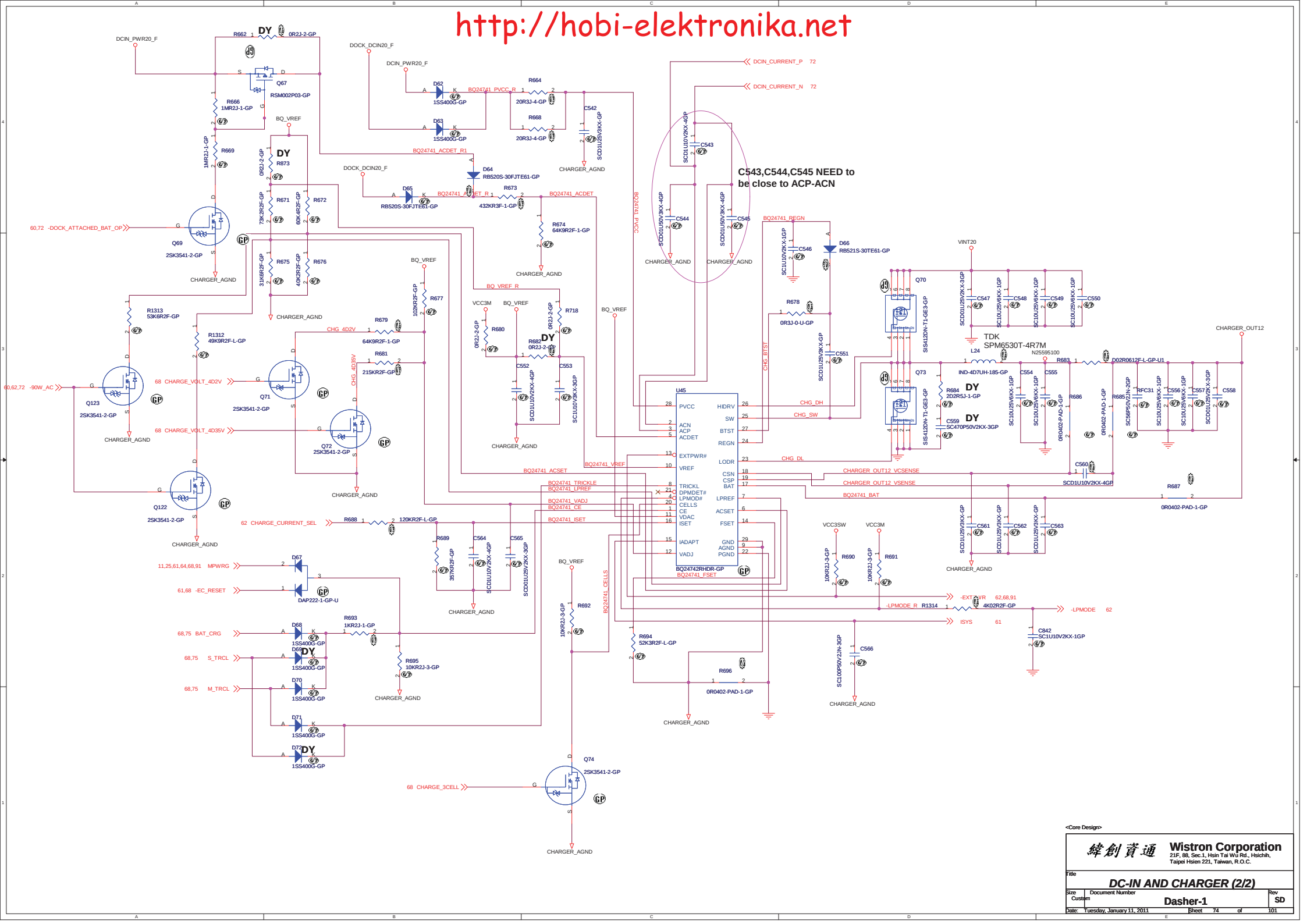
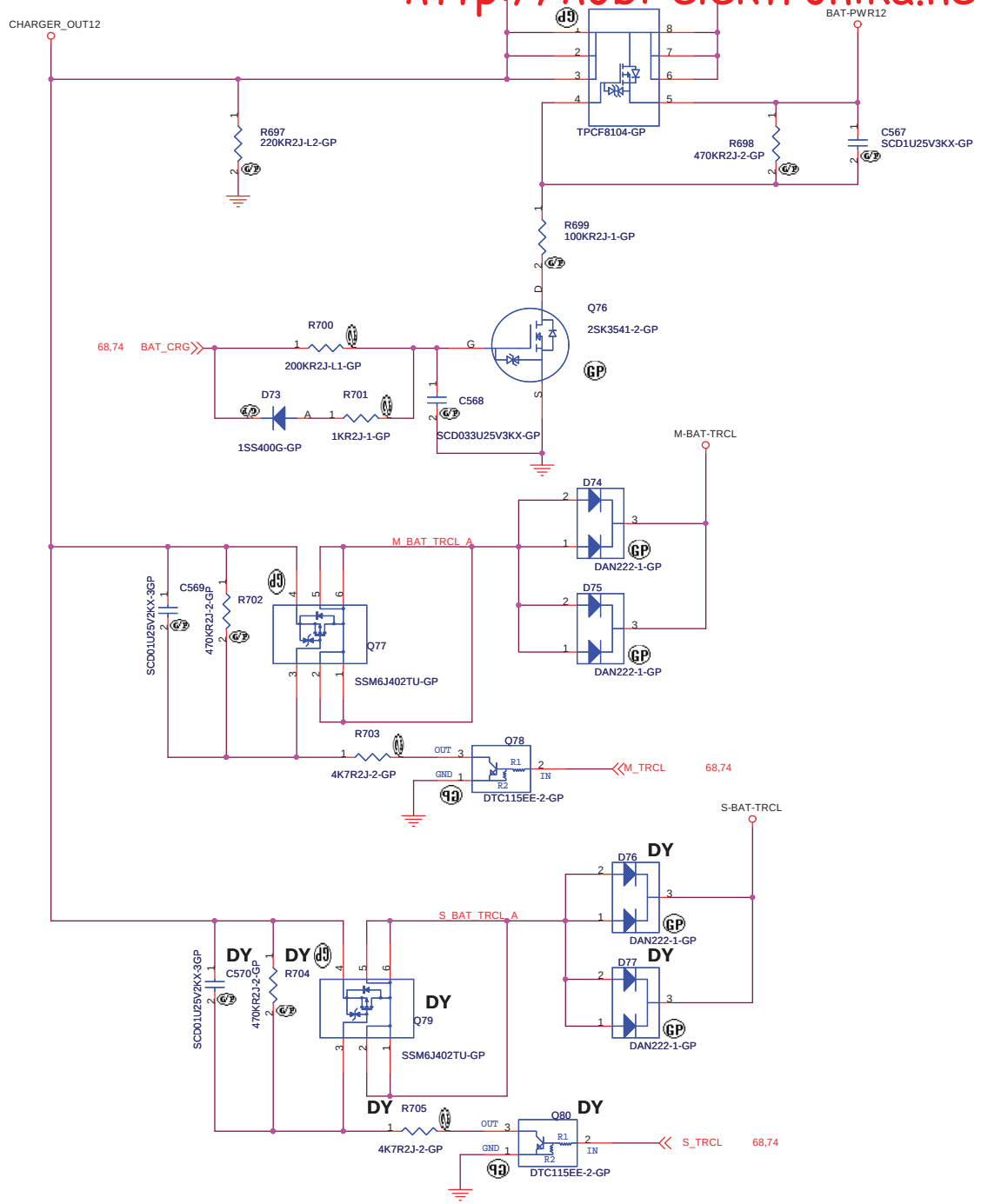
21F, 88, Sec.1, Hsin Tai Wu Rd., Hsichih,
Taipei Hsien 221, Taiwan, R.O.C.

Title: **BATTERY INPUT**

Size	Document Number	Rev
Custom	Dasher-1	SD

Date: Monday, January 10, 2011 Sheet 73 of 101





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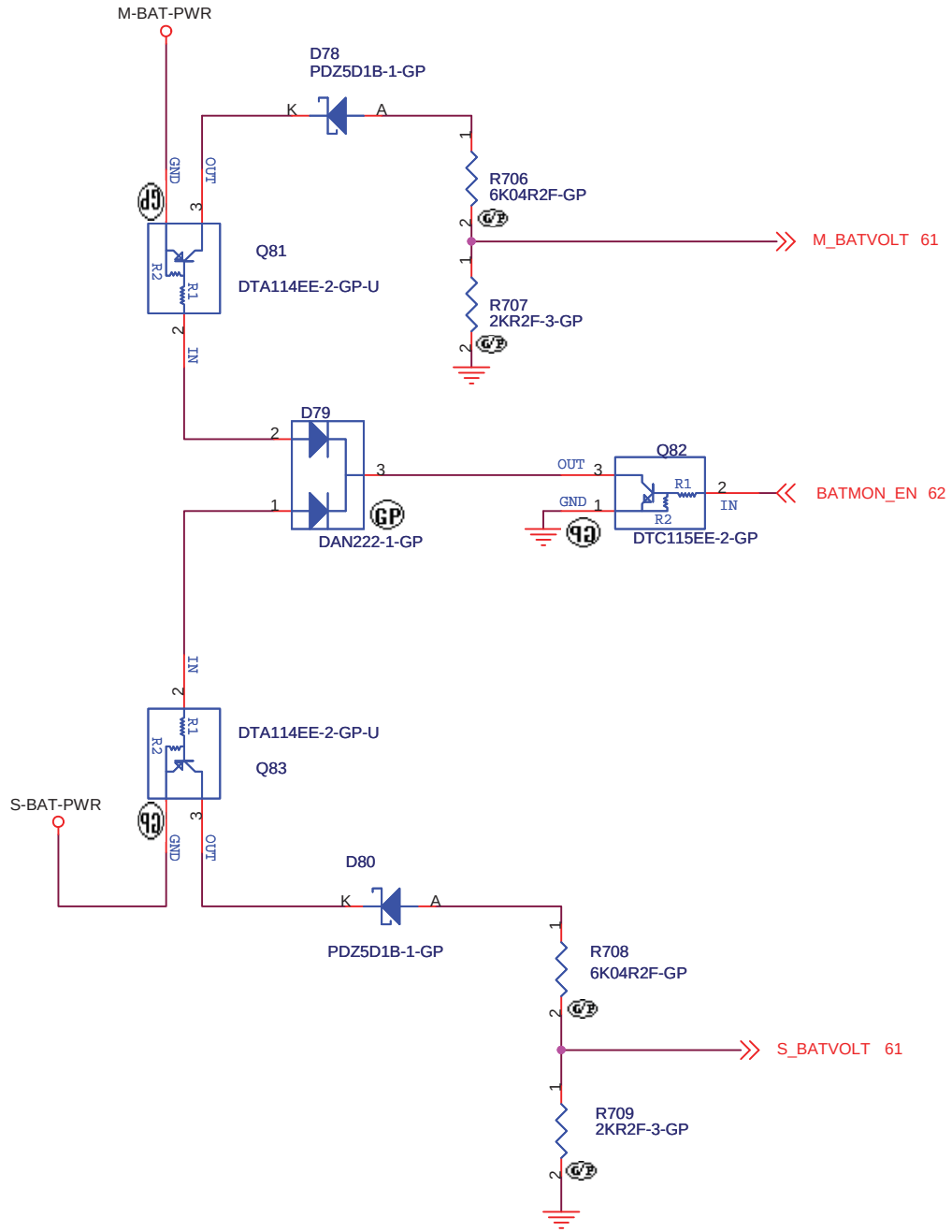
Title: **CHARGER SELECT**

Size	Document Number	Rev
A3	Dasher-1	SD

Date: Monday, January 10, 2011 Sheet 75 of 101

VOUT = 0.249 (VBAT - 5)



<Core Design>

緯創資通 Wistron Corporation 21F, 88, Sec.1, Hsin Tai Wu Rd., Hsichih, Taipei Hsien 221, Taiwan, R.O.C.		
Title: **BATTERY MONITOR**		
Size: A4	Document Number: **Dasher-1**	Rev: **SD**
Date: Monday, January 10, 2011	Sheet 76 of 101	

64,68 M1_ON — R710 1 0R2J-2-GP — VCC5M_ON 78,91

R712 1 0R2J-2-GP — VCC3M_ON 78

68 A1_ON — R714 1 0R2J-2-GP — VCC1R5A_ON 86

R711 1 0R2J-2-GP — VCC1R8B_ON 89

68 B1_ON — R713 1 0R2J-2-GP — B_ON 57,59,84,87,91,95

VCC3B

R715 47KR2J-2-GP

68 B1_ON — D81 pin 2

84 VTT_PWRG — D81 pin 1

D81 DAP222-1-GP-U

R774 0R2J-2-GP — VCCSA_ON 90

C571 SC1KP50V2KX-1GP

68 IMVP_ON — R927 1 0R2J-2-GP — VCORE_ON 79

VCC5V_OUT

R108 150R2F-1-GP

C894 SC2200P50V2KX-2GP

RZM002P02GT2L-GP Q36

R932 0R2J-2-GP — DB1_CORE 79

DY

68 WWAN_ON — D82 pin 2

B_ON — D82 pin 1

D82 DAN222-1-GP — VCC3WAN_ON 97

CONSTANT CONTNECT	YES	NO
D82	ASM	NO-ASM

VCC5V_OUT

R257 1KR2J-1-GP

R1000 0R2-PT5-LILY-GP

Q128 RUM002N02GT2L-GP

Q127 RUM002N02GT2L-GP

R300 1KR2J-1-GP — VT1316_IDES1_P 79

68

This circuit should be placed close to VT1316M

B1_ON — R719 1 22KR2J-GP — R720 1 1KR2J-1-GP — D83 1SS400G-GP — 0R75B_ON 87

C572 SCD1U10V2KX-4GP

<Core Design>

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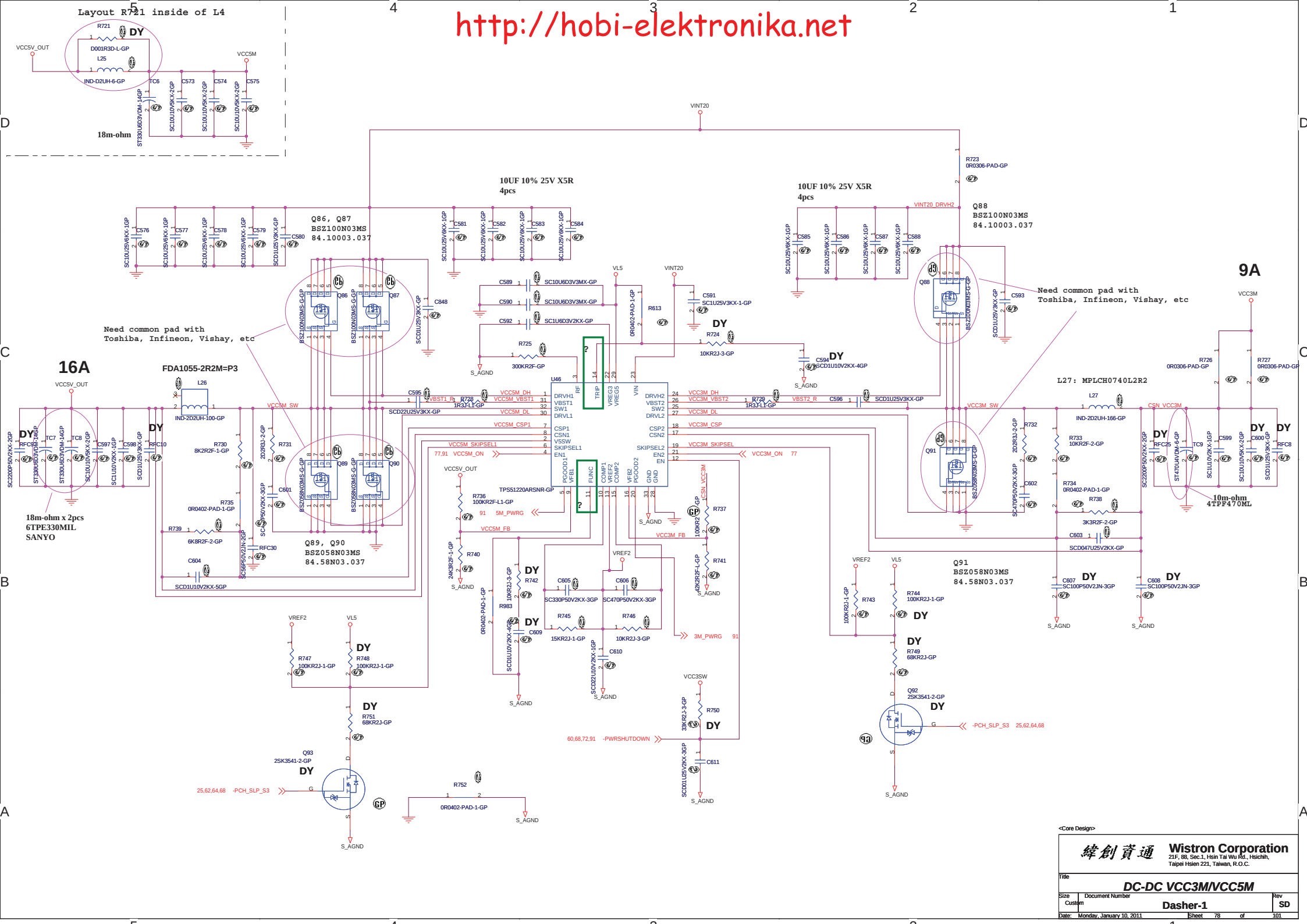
Taipei Hsien 221, Taiwan, R.O.C.

Title: POWER SEQUENCE

Size: Custom | Document Number: Dasher-1 | Rev: SD

Date: Monday, January 10, 2011 | Sheet 77 of 101



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緯創資通 Wistron Corporation
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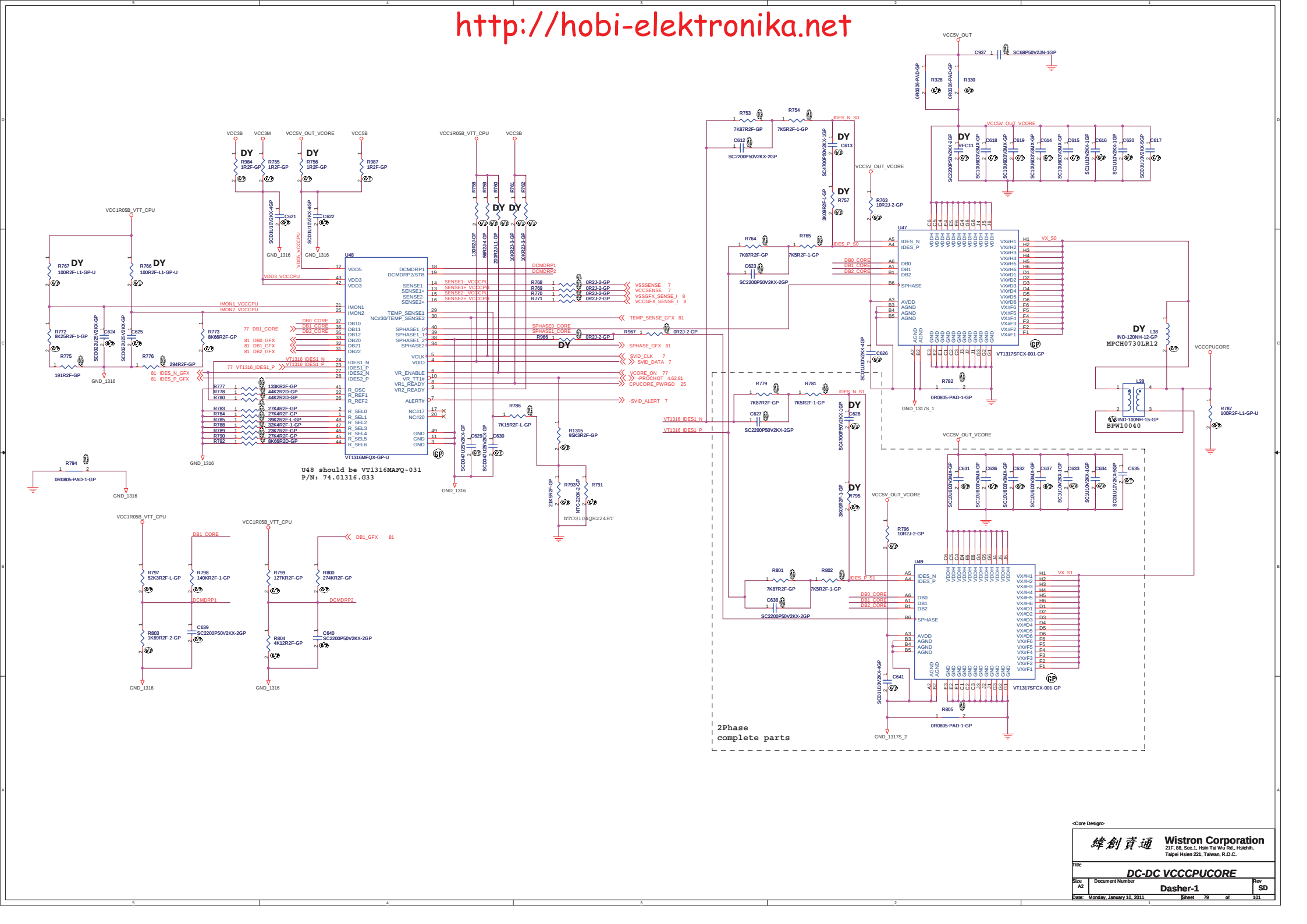
Taipei Hsien 221, Taiwan, R.O.C.

Title: DC-DC VCC3M/VCC5M

Size	Document Number	Rev
Custom	Dasher-1	SD

Date: Monday, January 10, 2011 Sheet 78 of 101



CPU/GFXCORE Table

CPU	SV 2Phase(53A)		LV 2Phase(43A)	ULV 1Phase(33A)	Remark
GFX	GT1(24A)	GT2(33A)	GT2(33A)	GT2(33A)	
U47	VT1317S	VT1317S	VT1314S	VT1317S	Slave IC
U49	VT1317S	VT1317S	VT1314S	NO_ASM	
R966	NO_ASM	NO_ASM	NO_ASM	0	Phase
R967	0	0	0	NO_ASM	
L28	NO_ASM	NO_ASM	NO_ASM	ASM	Inductor
L28	ASM	ASM	ASM	NO_ASM	
R783	27.4k	27.4k	39.2k	20.8k	R_SEL0
R784	27.4k	27.4k	6.57k	27.4k	R_SEL1
R785	39.2k	39.2k	39.2k	39.2k	R_SEL2
R788	27.4k	32.4k	32.4k	32.4k	R_SEL3
R789	11.4k(0.5%)	23.7k(1%)	23.7k(1%)	23.7k(1%)	R_SEL4
R790	27.4k	27.4k	27.4k	27.4k	R_SEL5
R792	8.66k(0.5%)	8.66k(0.5%)	8.66k(0.5%)	8.66k(0.5%)	R_SEL6
R779	7.87k	7.87k	7.87k	NO_ASM	RDES #2
C627	1000pF	1000pF	1000pF	NO_ASM	
R781	7.68k	7.68k	7.68k	NO_ASM	
R801	7.87k	7.87k	7.87k	NO_ASM	
C638	1000pF	1000pF	1000pF	NO_ASM	
R802	7.68k	7.68k	7.68k	NO_ASM	
C628	4700pF	4700pF	4700pF	NO_ASM	
R795	3.09k	3.09k	3.09k	NO_ASM	
R772	8.25k	8.25k	10.5k	8.06k	IMON1
R775	191	191	165	383	
R773	8.87k	8.66k	8.66k	8.66k	IMON2
R776	178	294	294	294	
R798	140k	140k	255k	221k	DCMDR1
R803	1.69k	1.69k	3.57k	3.16k	
R797	52.3k	52.3k	110k	97.6k	
R800	316k	274k	274k	274k	DCMDR1(prs)
R804	4.99k	4.12k	4.12k	4.12k	(drp)
R799	154k	127k	127k	127k	(ofs)
C631	10uF	10uF	10uF	NO_ASM	CIN
C636	10uF	10uF	10uF	NO_ASM	
C633	1uF	1uF	1uF	NO_ASM	
C634	1uF	1uF	1uF	NO_ASM	
C635	0.1uF	0.1uF	0.1uF	NO_ASM	
C632	10uF	10uF	10uF	NO_ASM	
C637	10uF	10uF	10uF	NO_ASM	
R796	10	10	10	NO_ASM	AVDD
C641	0.1uF	0.1uF	0.1uF	NO_ASM	
R805	0	0	0	NO_ASM	
C684	2.2uF	2.2uF	10uF	10uF	Coutput(1603)
C685	22uF	22uF	10uF	22uF	
C686	22uF	22uF	NO_ASM	22uF	
C687	22uF	22uF	NO_ASM	22uF	
C688	2.2uF	2.2uF	10uF	10uF	
C689	22uF	22uF	NO_ASM	22uF	
C690	22uF	22uF	10uF	22uF	
C691	22uF	22uF	NO_ASM	22uF	
C692	2.2uF	2.2uF	10uF	10uF	
C693	22uF	22uF	10uF	10uF	
C694	22uF	22uF	10uF	22uF	
C695	22uF	22uF	NO_ASM	22uF	
C696	22uF	22uF	10uF	22uF	
C697	22uF	22uF	10uF	22uF	
C698	2.2uF	2.2uF	10uF	10uF	
U50	VT1314S	VT1317S	VT1317S	VT1317S	Slave IC
R806	3.4k	3.16k	3.16k	3.16k	RDES G
C653	2700pF	2700pF	2700pF	2700pF	
R807	12.4k	11.5k	11.5k	11.5k	
R810	3.4k	3.16k	3.16k	3.16k	
C662	2700pF	2700pF	2700pF	2700pF	
R811	12.4k	11.5k	11.5k	11.5k	
C654	4700pF	4700pF	4700pF	4700pF	
R808	3.09k	3.09k	3.09k	3.09k	
C642	22uF	22uF	22uF	22uF	Coutput
C643	22uF	22uF	22uF	22uF	
C644	22uF	22uF	22uF	22uF	
C645	22uF	22uF	22uF	22uF	
C646	22uF	22uF	22uF	22uF	
C647	22uF	22uF	22uF	22uF	
C648	22uF	22uF	22uF	22uF	
C649	22uF	22uF	22uF	22uF	
C650	22uF	22uF	22uF	22uF	
C651	22uF	22uF	22uF	22uF	
C652	22uF	22uF	22uF	22uF	
C663	22uF	22uF	22uF	22uF	
C664	22uF	22uF	22uF	22uF	
C665	22uF	22uF	22uF	22uF	
C666	22uF	22uF	22uF	22uF	
C667	22uF	22uF	22uF	22uF	
C20	10uF	22uF	22uF	22uF	Coutput
C21	10uF	10uF	10uF	10uF	CPU side
C22	10uF	22uF	22uF	22uF	
C23	10uF	22uF	22uF	22uF	
C933	10uF	22uF	22uF	22uF	
C934	10uF	10uF	10uF	10uF	

CPU	SV 2Phase(53A)		LV 2Phase(43A)	ULV 1Phase(33A)	Remark
R754	7.5k	7.5k	7.5k	6.98k	IDES (CPU)
R765	7.5k	7.5k	7.5k	6.98k	
R781	7.5k	7.5k	7.5k	NO_ASM	
R802	7.5k	7.5k	7.5k	NO_ASM	
R806	3.16k	3.16k	3.16k	6.2k	IDES (GFX)
R810	3.16k	3.16k	3.16k	6.2k	
R807	11.3k	11.3k	11.3k	8.06k	
R811	11.3k	11.3k	11.3k	8.06k	
C654	4700pF	4700pF	4700pF	NO_ASM	
R808	3.09k	3.09k	3.09k	NO_ASM	

B L A N K

<Core Design>

緯創資通 Wistron Corporation
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Taipei Hsien 221, Taiwan, R.O.C.

Title: DC-DC VCCCPUCORE

Size	Document Number	Rev
A2	Dasher-1	SD

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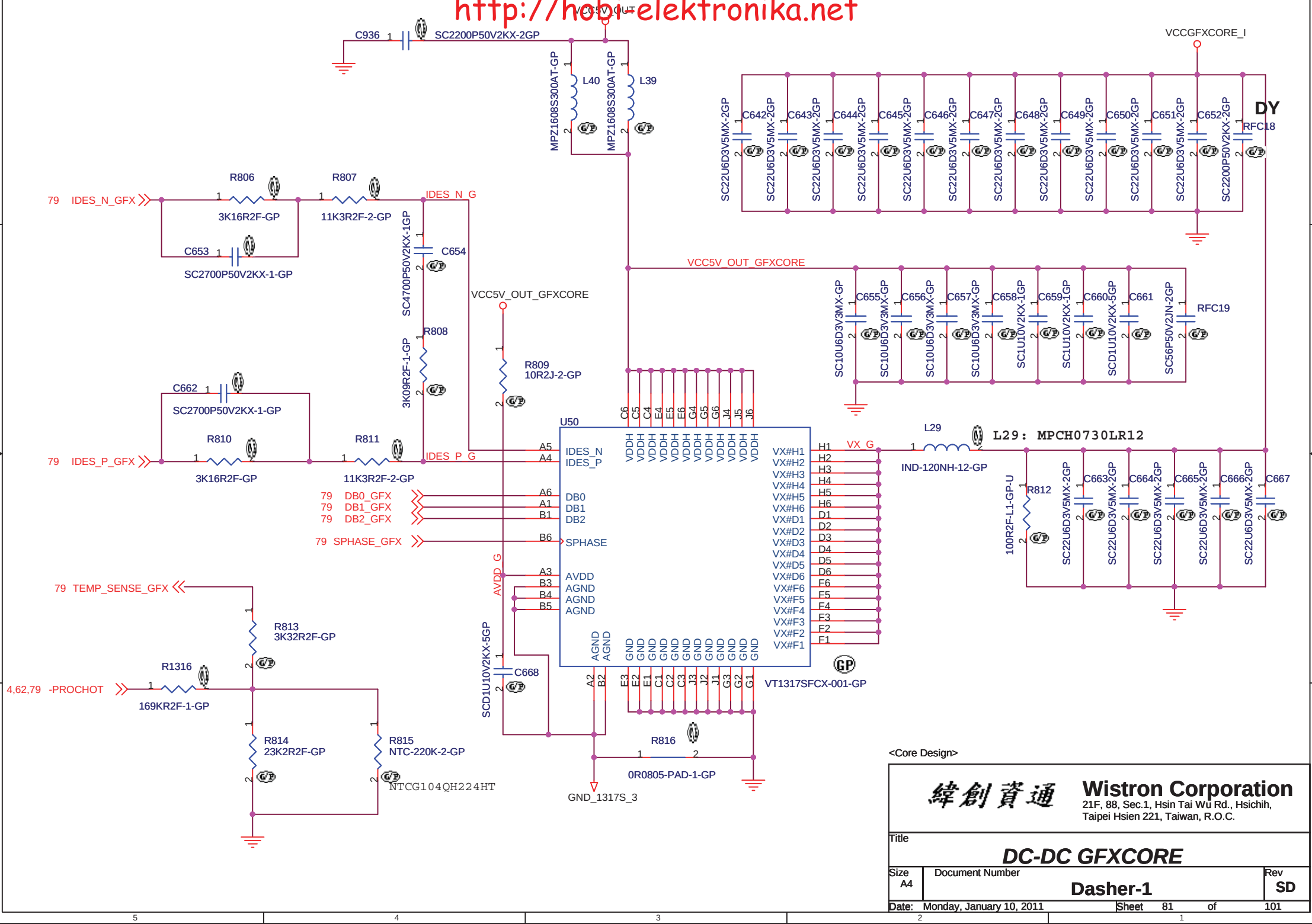

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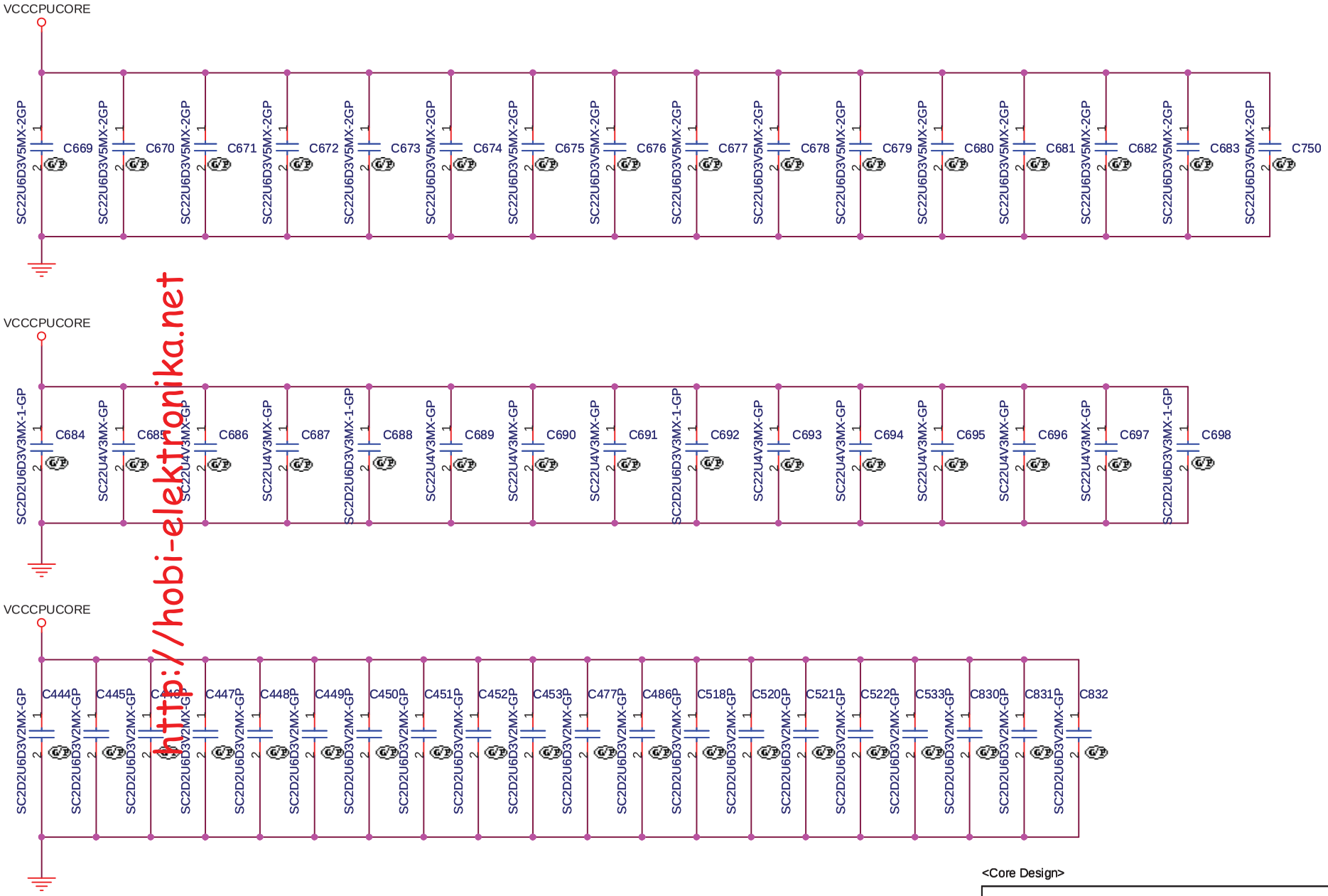
緯創資通	**Wistron Corporation** 21F, 88, Sec.1, Hsin Tai Wu Rd., Hsichih, Taipei Hsien 221, Taiwan, R.O.C.	
Title	***DC-DC GFXCORE***	
Size A4	Document Number **Dasher-1**	Rev **SD**
Date: Monday, January 10, 2011	Sheet 81 of 101	



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緯創資通 **Wistron Corporation**
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Title: ***DC-DC VCCCPUCORE***

Size	Document Number	Rev
A4	**Dasher-1**	**SD**

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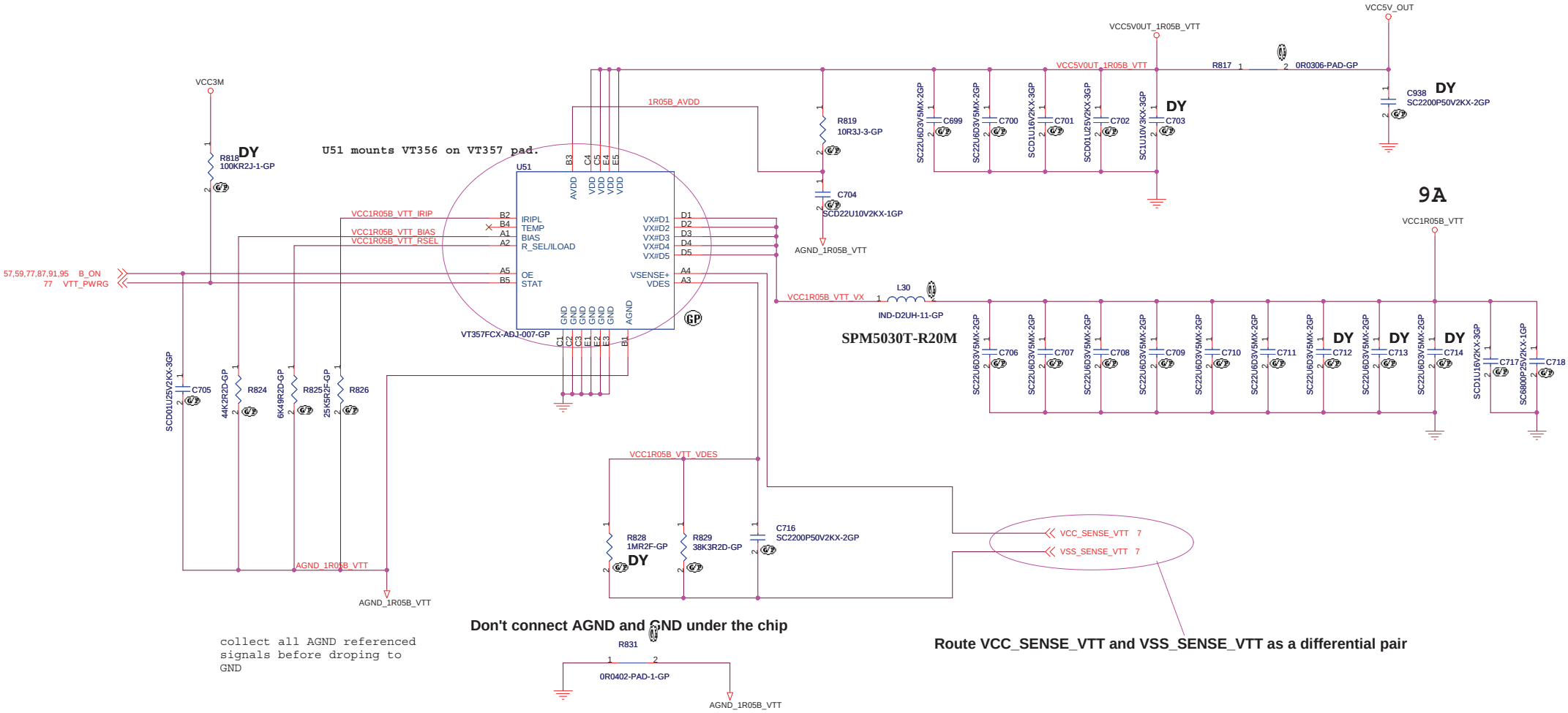
Size A4	Document Number Dasher-1	Rev SD
Date: Monday, January 10, 2011	Sheet 83 of 101	



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緯創資通 Wistron Corporation	21F, 88, Sec.1, Hsin Tai Wu Rd., Hsichih, Taipei Hsien 221, Taiwan, R.O.C.
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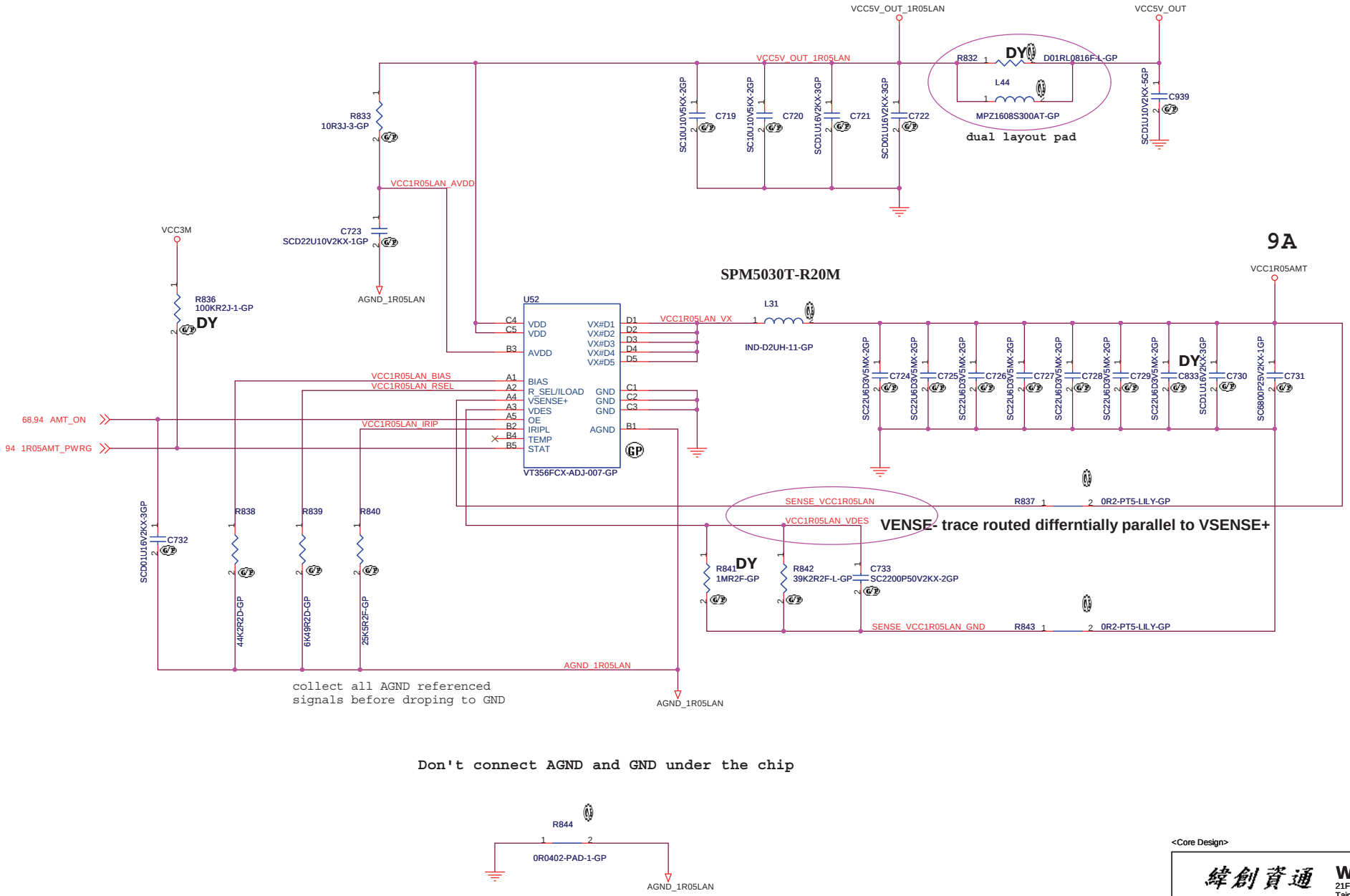
Size: Custom	Document Number: Dasher-1
Rev	SD
Date: Monday, January 10, 2011	Sheet 84 of 101



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Title: DC-DC VCC1R05AMT

Size	Document Number	Rev
A3	Dasher-1	SD

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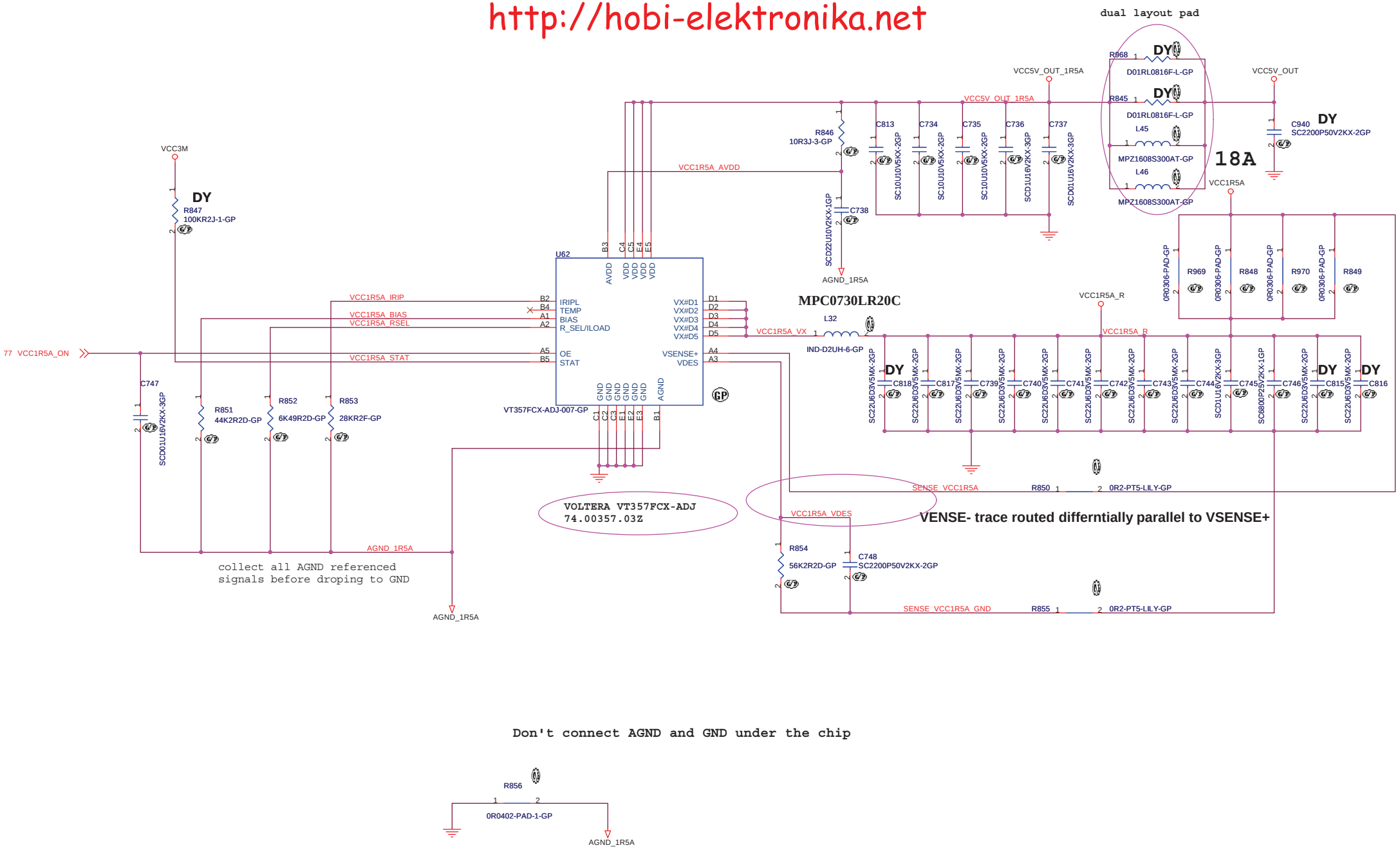

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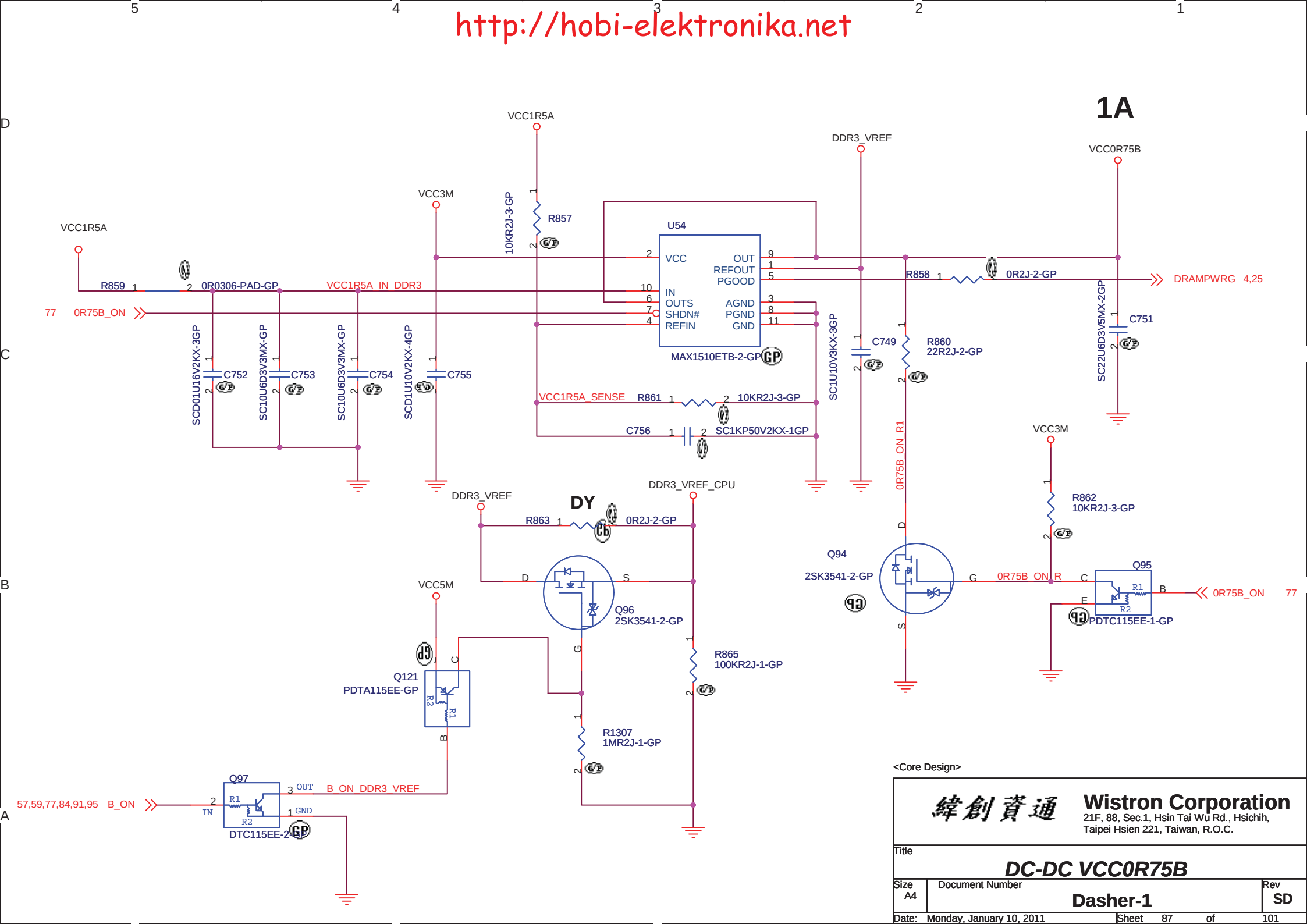
Size A3	Document Number Dasher-1
Rev	SD
Date: Monday, January 10, 2011	Sheet 86 of 101



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Title: DC-DC VCC0R75B

Size	Document Number	Rev
A4	Dasher-1	SD

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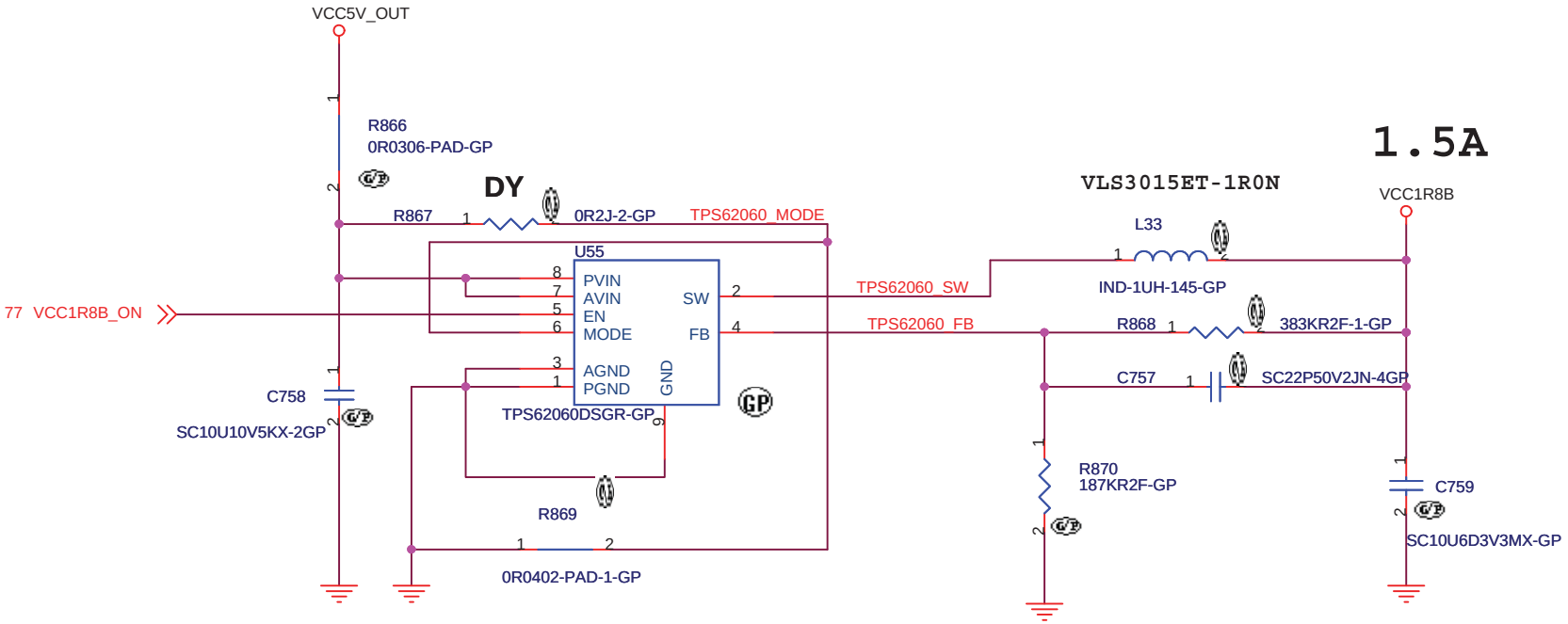
Size: A4	Document Number: Dasher-1	Rev: SD
Date: Monday, January 10, 2011	Sheet 88 of 101	



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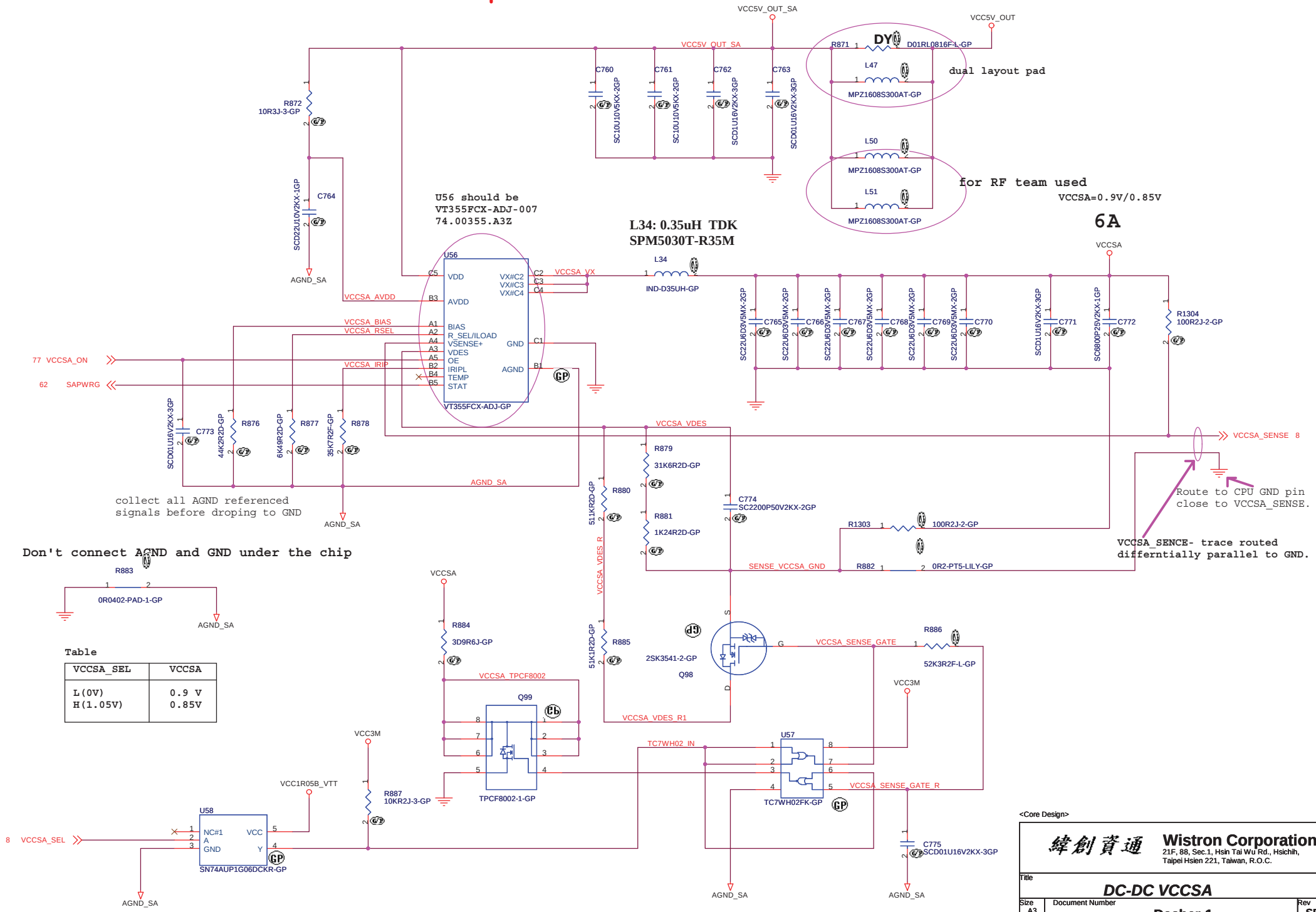
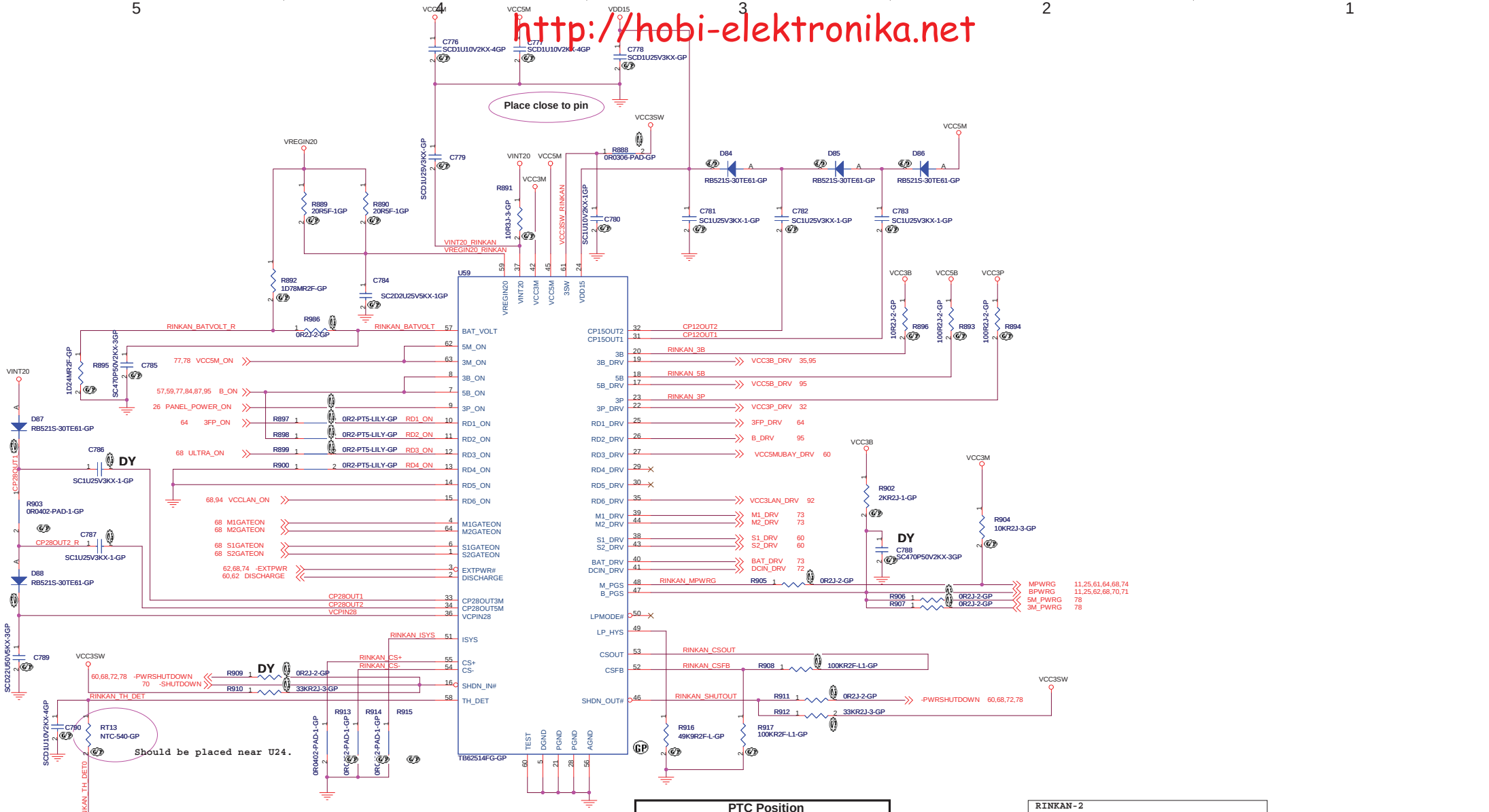
Title: ***DC-DC VCC1R8B***

Size	Document Number	Rev
A4	Dasher-1	SD

Date: Monday, January 10, 2011 Sheet 89 of 101





PTC Position	
RT1	Dirver(VCCCPU1) U47
RT2	Dirver(VCCCPU2) U49
RT3	Dirver(VCC GFX)
RT4	FET (VCC3M)
RT5	FET (VCC5M)
RT6	FET(Docking)
RT7	FET (AC Adapter Input)
RT8	FET (M-Battery Input)
RT9	FET (S-Battery Input)
RT10	FET (Charger)
RT11	FET(VCC3WAN Load SW)
RT12	FET(VCC3WLAN Load SW)
RT_CPU1	Monitor_CPU
RT13	FET (VCC3_AUX_USB)

USB3.0	Enable	Disable
RT13	PTC	0-ohm, 5%

RINKAN-2		
Toshiba	TB62514FG	74.62514.07T
Rohm	BD41760KVT-G	74.41760.B9T

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Title: DC-DC RINKAN-2

Size: Custom | Document Number: Dasher-1 | Rev: SD

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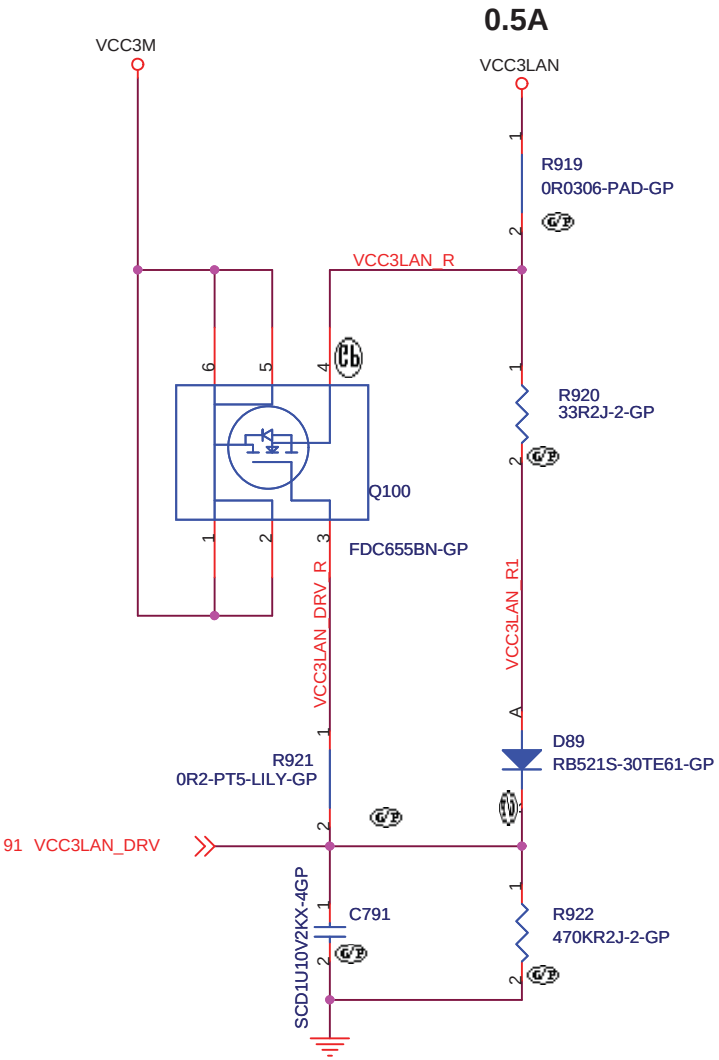

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緯創資通 Wistron Corporation	21F, 88, Sec.1, Hsin Tai Wu Rd., Hsichih, Taipei Hsien 221, Taiwan, R.O.C.
Title	LOAD SW 1
Size A4	Document Number Dasher-1
Rev	SD
Date: Monday, January 10, 2011	Sheet 92 of 101

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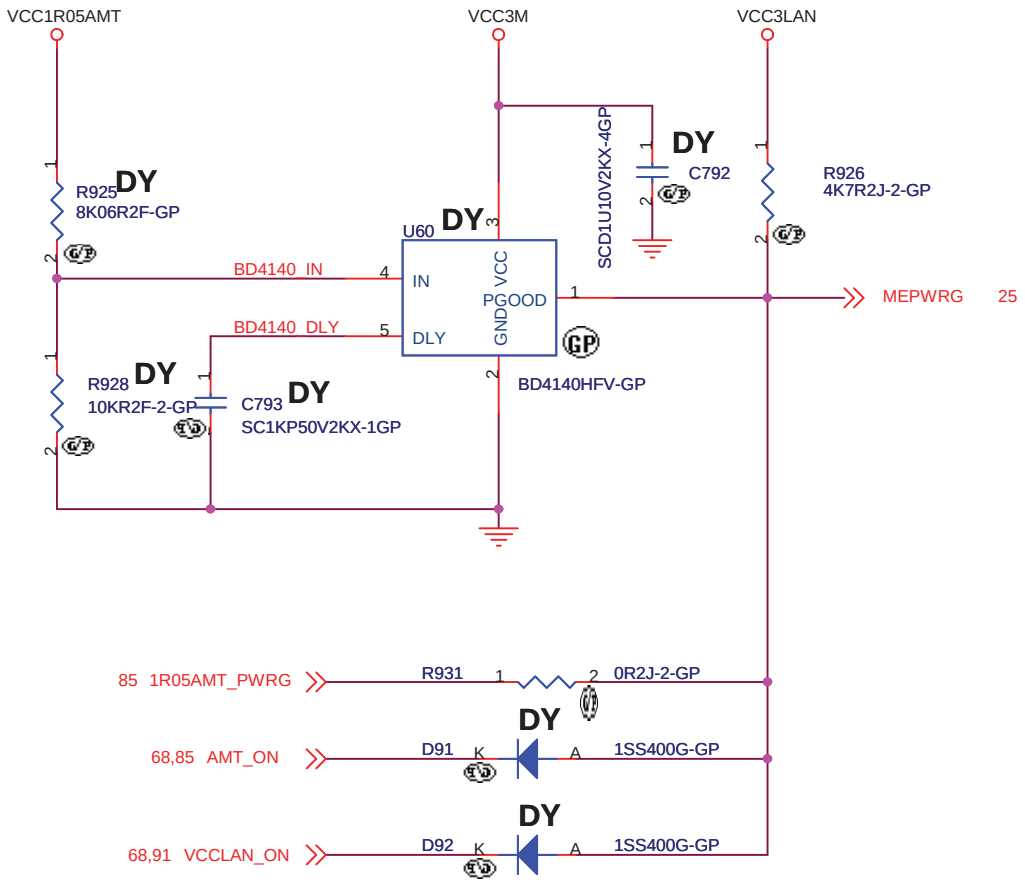
Taipei Hsien 221, Taiwan, R.O.C.

Title	BLANK	
Size A4	Document Number Dasher-1	Rev SD
Date: Monday, January 10, 2011	Sheet 93 of 101	



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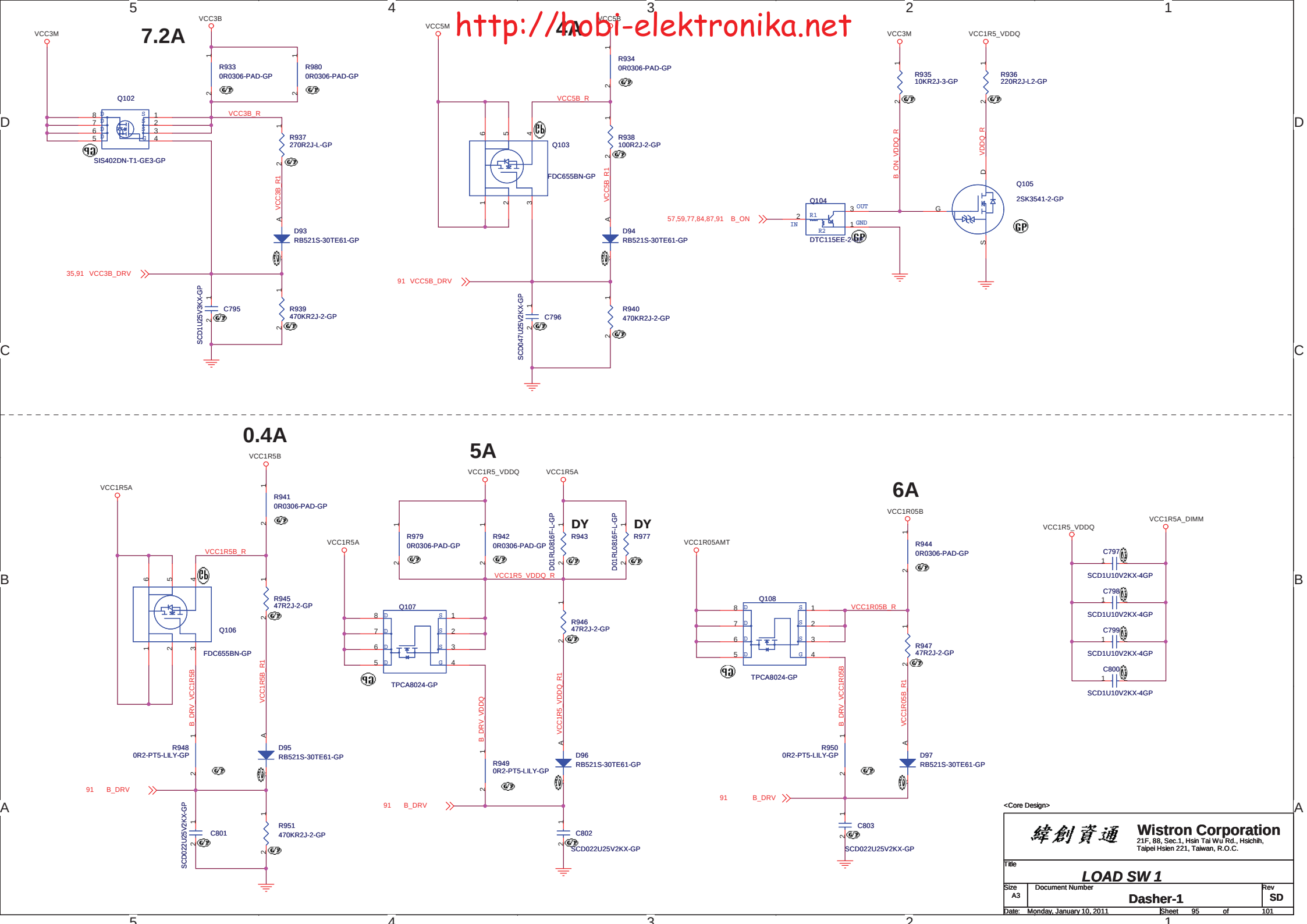
緯創資通 **Wistron Corporation**
21F, 88, Sec.1, Hsin Tai Wu Rd., Hsichih,
Taipei Hsien 221, Taiwan, R.O.C.

Title: ***POWER GOOD***

Size	Document Number	Rev
A4	Dasher-1	SD

Date: Monday, January 10, 2011 Sheet 94 of 101



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Wistron Corporation
21F, 88, Sec.1, Hsin Tai Wu Rd., Hsichih,
Taipei Hsien 221, Taiwan, R.O.C.

Title: LOAD SW 1

Size	Document Number	Rev
A3	Dasher-1	SD

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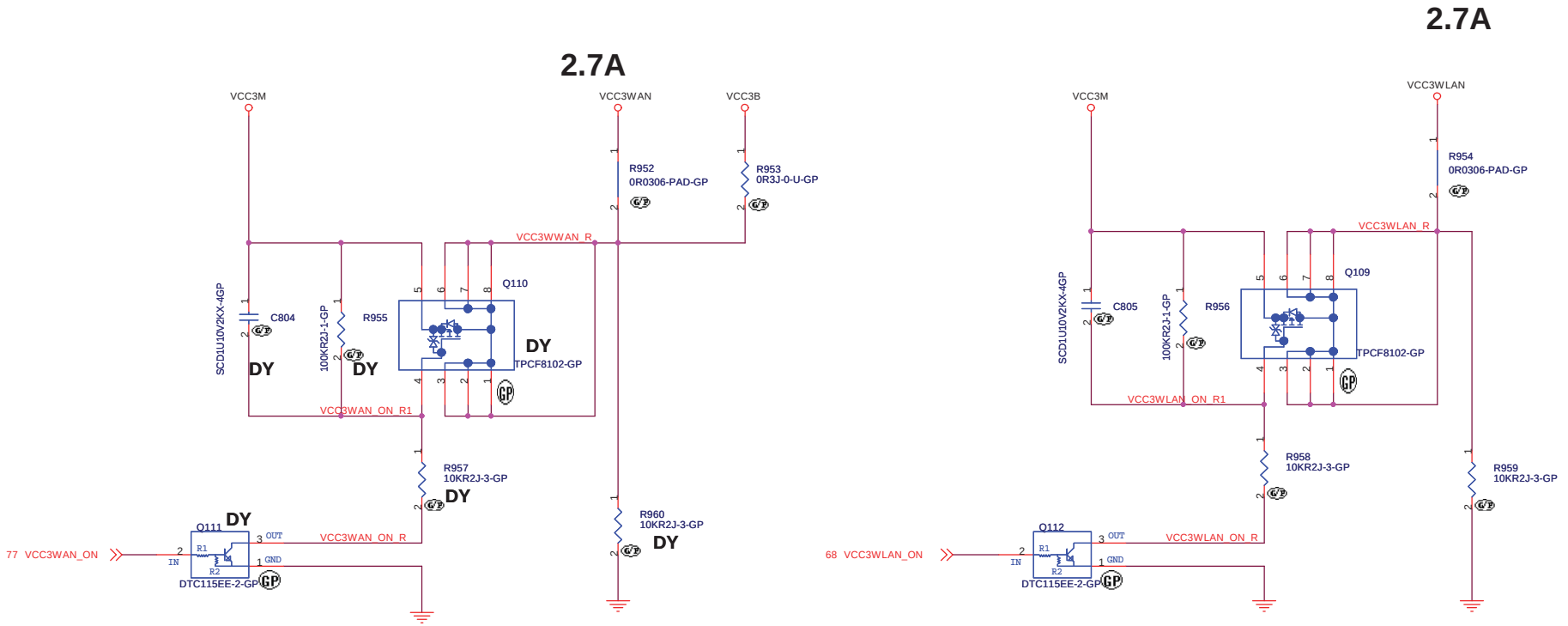
<Core Design>

緯創資通 Wistron Corporation
21F, 88, Sec.1, Hsin Tai Wu Rd., Hsichih,
Taipei Hsien 221, Taiwan, R.O.C.

Title	BLANK	
Size A4	Document Number Dasher-1	Rev SD
Date: Monday, January 10, 2011	Sheet 96 of 101	



Constant Secure	YES	NO
R953	DY	ASM
C804 R955 Q110 R957 Q111 R960	ASM	DY
R952	ASM	ASM

<Core Design>

緯創資通 **Wistron Corporation**
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Title: **LOAD SW 2**

Size	Document Number	Rev
A3	Dasher-1	SD

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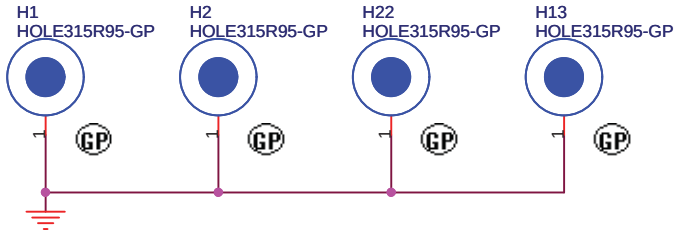

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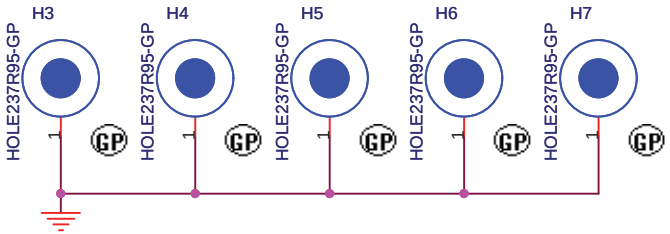

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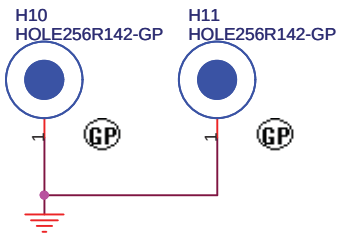
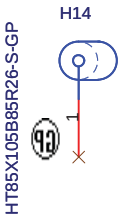


ZZ.SCREW.191



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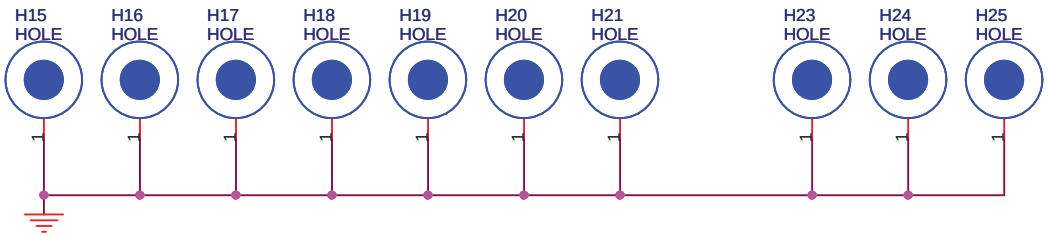
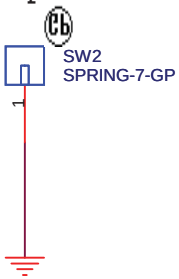
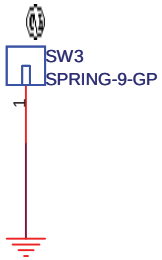


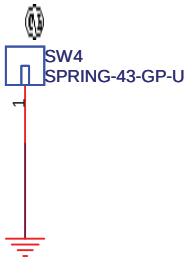
34.49U26.001
GND pad for docking connector



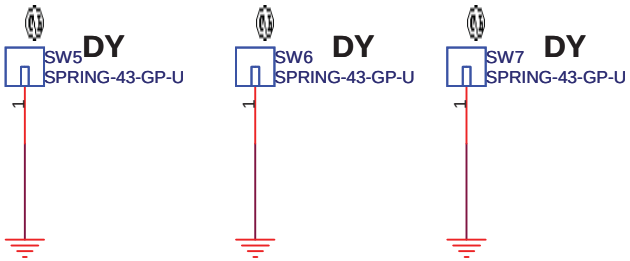
34.49U23.001
GND pad for docking connector



34.15J03.001
spring for EMI



34.15J03.001
spring for RF (SW5~SW7)



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Title: ***HOLES/GND/PADS***

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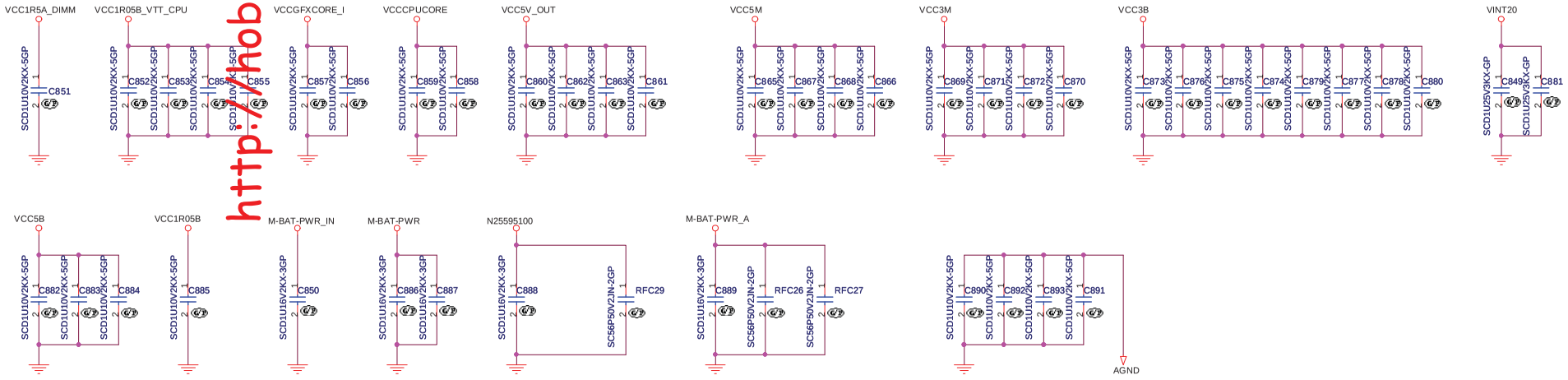
RF decoupling caps

named as RFCxxx

Long power trace EMI decoupling caps



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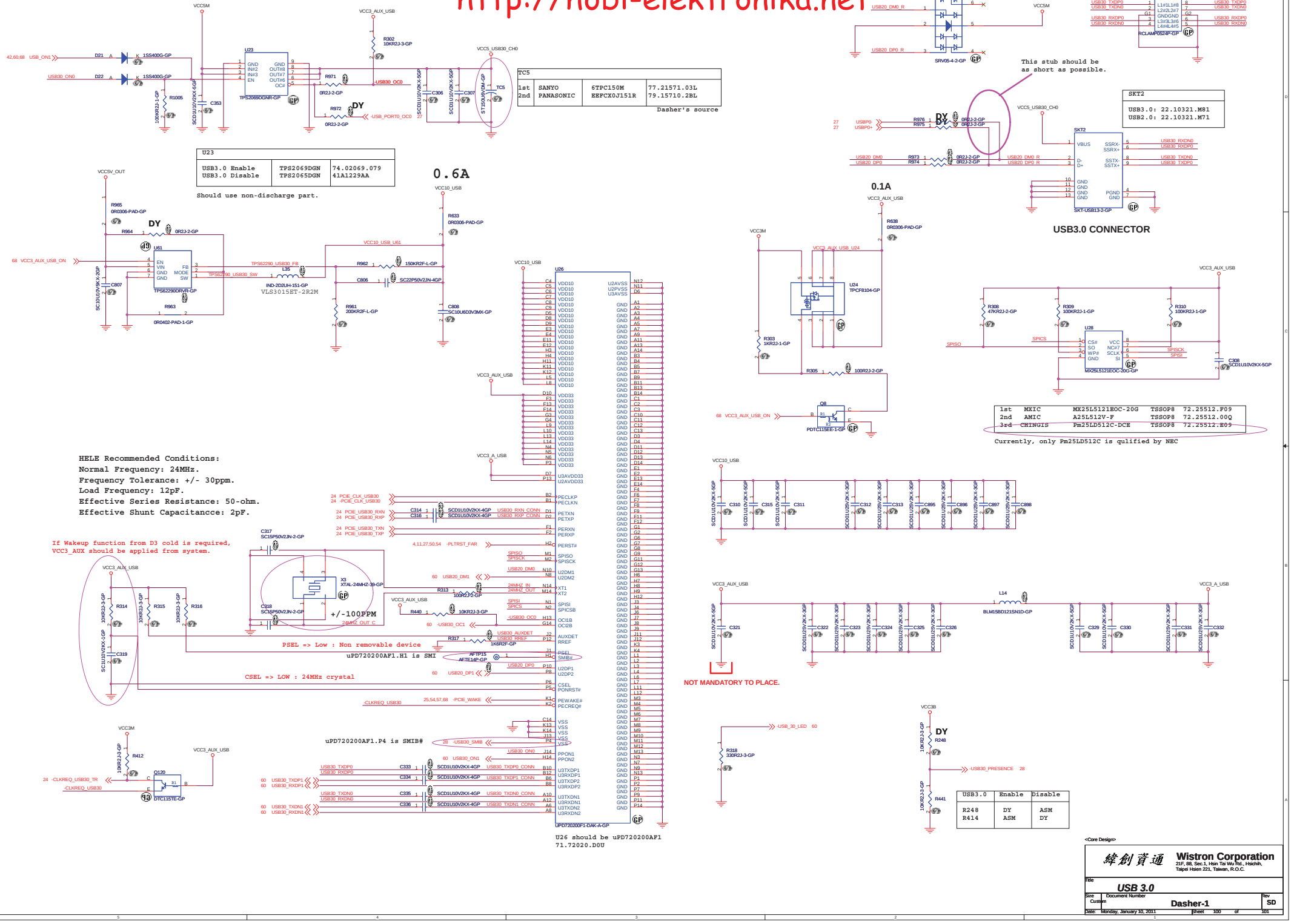
Title: EMI DECOUPLING		
Size: Custom	Document Number: Dasher-1	Rev: SD
Date: Monday, January 10, 2011	Sheet 99 of 101	



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Title: USB 3.0
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	USB3.0 Enable	USB3.0 Disable
U23	TPS2069DGN	TPS2065DGN
D21	ASM	ASM
D22	ASM	DY
C353	ASM	ASM
R302	ASM	DY
R971	ASM	DY
R972	DY	ASM
C306	ASM	ASM
C307	ASM	ASM
TC5	ASM	ASM
U61	ASM	DY
R965	ASM	DY
R964	DY	DY
R963	ASM	DY
C807	ASM	DY
L35	ASM	DY
R961	ASM	DY
R962	ASM	DY
C806	ASM	DY
C808	ASM	DY
R633	ASM	DY
U26	ASM	DY
C314	ASM	DY
C316	ASM	DY
R313	ASM	DY
X3	ASM	DY
C317	ASM	DY
C318	ASM	DY
C319	ASM	DY
R440	ASM	DY
R314	ASM	DY
R315	ASM	DY
R316	ASM	DY
R317	ASM	DY
C310	ASM	DY
R412	ASM	ASM
Q120	ASM	DY
C333	ASM	DY
C334	ASM	DY
C335	ASM	DY
C336	ASM	DY
U28	ASM	DY
R308	ASM	DY
R309	ASM	DY
R310	ASM	DY
C308	ASM	DY
U24	ASM	DY
R638	ASM	DY
R303	ASM	DY
R305	ASM	DY
Q8	ASM	DY
SKT2	USB3.0 Conn.	USB2.0 Conn.
R973	ASM	DY
R974	ASM	DY
R975	DY	ASM
R976	DY	ASM
D20	DY	DY
D25	DY	DY
C310	ASM	DY
C311	ASM	DY
C312	ASM	DY
C313	ASM	DY
C315	ASM	DY
C320	ASM	DY
C321	ASM	DY
C322	ASM	DY
C323	ASM	DY
C324	ASM	DY
C325	ASM	DY
C326	ASM	DY
C327	ASM	DY
L14	ASM	DY
C329	ASM	DY
C330	ASM	DY
C331	ASM	DY
C332	ASM	DY
R318	ASM	DY
R248	DY	ASM
R441	ASM	DY

	USB3.0 Enable	USB3.0 Disable
R437	DY	ASM
R438	DY	ASM
R436	ASM	DY
R439	ASM	DY
D99	ASM	DY
D100	ASM	DY
R989	DY	ASM
R991	ASM	DY
R988	DY	ASM

B L A N K

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Title: BLANK

Size: C | Document Number: Dasher-1 | Rev: SD

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